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The MODERN HOSPITAL

Vol. VIII *June, 1917* No. 6

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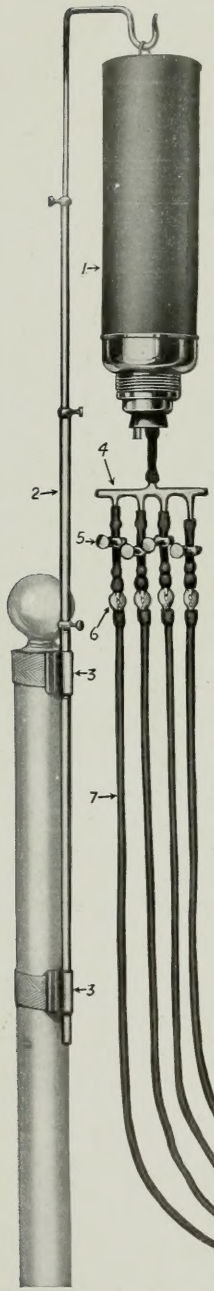

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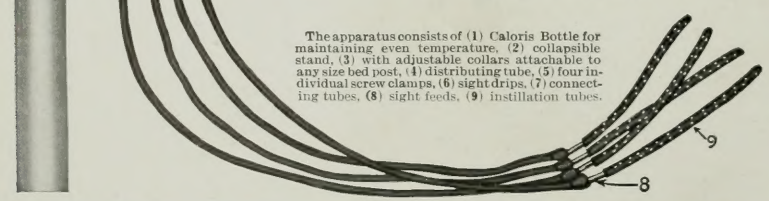

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CONTENTS

FOR JUNE, 1917

COVER—Cook County Tuberculosis Hospital, Oak Forest, Ill.

ORIGINAL ARTICLES.

The Cook County Tuberculosis Hospital, Oak Forest, Ill. ... 377
Henry L. Bailey.

History of Occupational Therapy. ... 380
William Rush Dunton, Jr.

Remunerative Occupations for the Handicapped. ... 383
Herbert J. Hall, M. D.

Occupation and Diversion for Tuberculous Patients. ... 387
Arthur T. Laird, M. D.

The Beneficial Effects of Work Therapy for the Insane. ... 392
Fred P. Clark, M. D.

The Potteries of Arequipa Sanatorium. ... 394
Philip King Brown, M. D.

Occupation and Its Relation to Mental Hygiene. ... 397
Elnora E. Thomson.

Inoculation of the Bacillus of Work. ... 399
George Edward Barton, A. I. A.

Occupation Therapy in the Mental Hospital ... 404
A. H. Ruggles, M. D.

Work in the Treatment of Insane Criminals. ... 406
Paul E. Bowers, M. D.

Some Principles of Occupational Therapy. ... 409
Elizabeth G. Upham.

Occupational Therapy in New York City Institutions ... 414
Susan C. Johnson.

Occupational Therapy at Muirdale. ... 415
Rachel Horner.

Occupational Therapy in Dementia Precox. ... 417
Ettabel Mabie, R. N.

EDITORIAL.

The War and the Hospital World. ... 420
A Special Number for the Small Hospital. ... 421
Special Features for July. ... 422
Standardization Articles Postponed—Other Last-Minute Notations. ... 422
The Occupational Therapy Number. ... 422
Preparedness and Child Labor. ... 423

MISCELLANEOUS ARTICLES.

Making Dependents Self-Supporting. ... 418
Another War Problem. ... 419
Vocational Training for Disabled Canadian Soldiers. ... 424
Equipment of German Hospital Ships. ... 424
Occupational Therapy in the General Hospital. ... 425
A War Measure. ... 427
Child Labor in Kentucky. ... 427
St. Anthony Mats. ... 428
Psychology for Pupil Nurses. ... 429
Red Cross Military Units. ... 433

DEPARTMENT OF NURSING. ... 430
The 1917 Convention of the Three Nursing Organizations; Nursing Conditions in Java.

BULLETIN OF THE AMERICAN HOSPITAL ASSOCIATION. ... 432
Official Bulletin for May.

HOSPITAL, MEDICAL, AND SPECIAL MEETINGS. ... 434
American Medical Association; Kansas Hospital Association; New York Association of Dietitians; The Minnesota Hospital Association.

DEPARTMENT OF DIETETICS. ... 436
Why Not Have All the Variety We Can?

CURRENT HOSPITAL LITERATURE. ... 437

BOOK REVIEWS. ... 439

NEW INSTRUMENTS AND EQUIPMENT. ... 440
Hand-Driven Circular Saw for Cutting Bone Transplants, Etc.; Goodwill Electric Heating Pad; Sterilizing Outfit for Hypodermic Syringes; The Lyons Milk Urn; Safety Operating Lamp; Blood Needle for Wassermann Test.

INDEX TO VOL. VIII, THE MODERN HOSPITAL. ... i to xiv

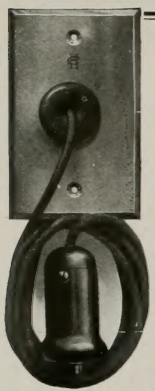
NEWS OF THE HOSPITAL FIELD. ... Adv. 34

INDEX TO ADVERTISERS. ... Adv. 7, 8

CLASSIFIED ADVERTISING. ... Adv. 48, 50, 52, 54, 56

DIRECTORY OF HOSPITAL AND ALLIED ASSOCIATIONS. ... Adv. 58

DIRECTORY OF HOSPITAL SUPPLIES. ... Adv. 85, 87, 89, 91



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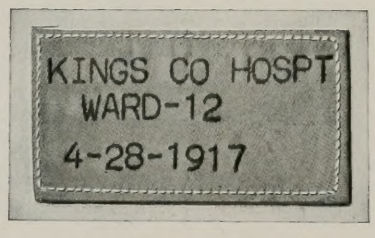

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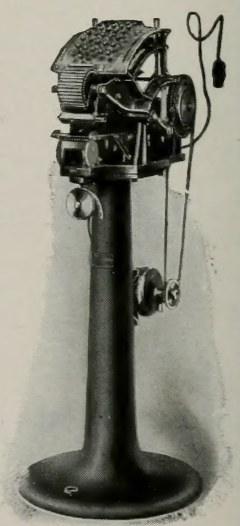

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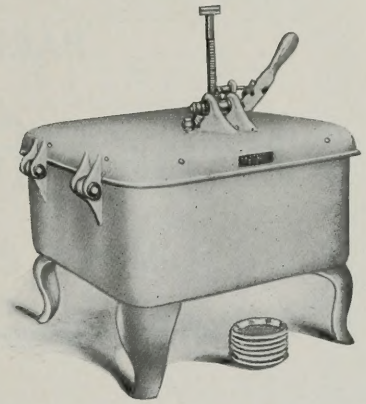

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INDEX OF ADVERTISERS

See Pages 85, 87, 89, and 91 for Directory of Hospital Supplies

Abbott Laboratories ... 11
Acme Mill Ends Company ... 94
American Bank Protection Company ... 124
American District Steam Company ... 123
American Flooring Company ... 103
American Ironing Machine Company ... 108
American Laundry Machinery Company ... 29
American Safety Razor Company ... 66c
American Sterilizer Company ... 14
American Wine Company ... 97
Angelica Jacket Company ... 8
Anheuser-Busch Brewing Association ... 120
Archer Rubber Company ... 12
Armstrong Impervo Company, E. A ... 46
Associated Tile Manufacturers ... 18
Automatic Electric Company ... 64
Baker Linen Company, H. W ... 19
Baker & Sons Co., J. R ... 48
Baker Ice Machine Company ... 53
Battle Creek Sanitarium ... 77
Becton, Dickinson & Co ... 88
Bernstein Manufacturing Company ... 22
Best Bros. Keene's Cement Company ... 111
Betz Company, Frank S ... 128
Blakeslee & Co., G. S ... 50
Blakiston's Son & Co., P ... 52
Bliss, Fabyan & Co ... 20
Borden's Condensed Milk Company ... 15
Born Steel Range Company ... 10
Boyd & Co., F. O ... 117
Boyle & Co., John ... 21
Brecht Company ... 27
Bromley-Merseles Manufacturing Company, Inc ... 61
Brunswick-Balke-Collender Company ... 51
Burkhardt Company ... 54
Burton Range Company ... 82
Butler Back Rest Company ... 107
Butter Serving Machine Company ... 5
California Fruit Growers Exchange ... 4th cover
Calumet Tea and Coffee Company ... 41
Capital City Dairy Company ... 86
Carnation Milk Products Company ... 57
Castle Company, Wilmot ... 25
Célestins Vichy ... 118
Chapin Co., Inc., L. F ... 92
Chicago Signal Company ... 102
Cincinnati Fly Screen Company ... 19
Classified Advertisements ... 48, 50, 52, 54, 56
Clicquot Club Company ... 17
Coast Products Company ... 43
Columbus Aseptic Furniture Company ... 80
Columbus Laboratories ... 126
Consolidated Hospital Supply and Laundry Mach. Co. 82
Cordley & Hayes ... 80
Cudahy Curled Hair Works ... 55
Currier, Everett C ... 44
Dahlstrom Metallic Door Company ... 102
Davis & Geck, Inc ... 29
Davol Rubber Company ... 118
Demling, J. H ... 90
Directory of Hospital and Allied Associations ... 58
Directory of Hospital Supplies ... 85, 87, 89, 91
Dix & Sons Company, Henry A ... 51
Dixie Cotton Felt Mattress Company ... 128
Dougherty & Co., H. D ... 99
Dougherty & Sons, Wm. F ... 66
Draeger Oxygen Apparatus Company ... 117
Draper Shade Company, Luther O ... 107
Eames Company ... 82
Eastman Kodak Company ... 83
Edmands, Walter S ... 111
Eimer & Amend ... 88
Electric Controller Company ... 55
Electric Smelting and Aluminum Company ... 68
Electro Surgical Instrument Company ... 41
Ensign, Inc., W. S ... 57
E. Z. Patch Company ... 10
Fairbanks, Morse & Co ... 23
Farr & Bailey Manufacturing Company ... 112
Farwell Company, John V ... 36
Faultless Caster Company ... 105
Fearless Dishwasher Company ... 65
Feick Brothers ... 88
Feldman Manufacturing Company, Inc ... 37
Ford Company, J. B ... 122
Foster Bros. Manufacturing Company ... 117
Foster Rubber Company ... 125
Fries Brothers ... 68
General Electric Company ... 13
Goodwill Electric Company ... 30
Gum Lumber Manufacturers' Association ... 62
Hall & Sons, Frank A ... 105
Hall China Company ... 121
Hall Laboratories, Wilford ... 54
Hamilton-Low Company ... 100
Hansen's Laboratory, Chr ... 103
Haserot Canneries Company ... 55
Hays & Green ... 57
Hecker Cereal Company ... 12
Heidbrink Company ... 62
Hoffmann & Billings Manufacturing Company ... 124
Hoffman Company, Geo. Wm ... 52
Hollister-Ashland Laboratories ... 23
Holtzer-Cabot Electric Company ... 4
Horlick's Malted Milk Company ... 8
Hospital Nurses' Uniform Mfg. Co ... 67
Hospital Supply Company ... 1
Hotel LaSalle ... 111
Hygeia Nursing Bottle Company ... 33
Imperial Machine Company ... 66
Individual Towel and Cabinet Service Company ... 40
Inner Braced Furniture Company ... 121
Jarvis & Jarvis ... 79
Johnson & Johnson ... 15
Kaffee Hag Corporation ... 27
Kelley-Koett Manufacturing Company ... 72
Kelso & Co ... 66
Kesselring X-Ray Tube Company ... 74
Kiett Manufacturing Company ... 90
Kny-Scheerer Company ... 94
Kroeschell Bros. Ice Machine Company ... 92
Ladd Company, John W ... 21
Lane & Bro., W. T ... 66d
Lawrence Restrainer Company ... 49
Leonard-Rooke Company ... 16
Lewis Manufacturing Company ... 107
Lincoln Rubber Company ... 115
Loder & Associates, Cornelius S ... 46
Lorillard Refrigerator Company ... 113
Luminous Unit Company ... 62
Lyons Sanitary Urn Company ... 69
McCray Refrigerator Company ... 93
McKesson & Robbins ... 49
Mallinckrodt Chemical Company ... 40
Mammala Corporation ... 9
Mandel Brothers ... 99
Maplewood Mills ... 25
Mas-Oleum Floor Manufacturing Company ... 100
Mason, Davis & Co ... 27
Matthews Company, Jas. H ... 61
Meinecke & Co ... 32
Mellin's Food Company ... 19
Mennen Chemical Company, Gerhard ... 81
Mercer Sanitarium ... 79
Metropolitan Hospital Supply Company ... 108
Meyer Company, Wm ... 74
Miller Rubber Company ... 101
Milwaukee Lace Paper Company ... 70
Milwaukee Sanitarium ... 78
Minneapolis Heat Regulator Company ... 104
Mississippi Wire Glass Company ... 104
Mohawk Clay Products Company ... 116
Monroe Refrigerator Company ... 95
Moody's Sanitarium, Dr ... 78
Moore Bros. ... 106
Mott Iron Works, J. L ... 24
Mulford Company, H. K ... 2d cover
Muller & Co., F. R ... 124
Myerson Printing Company, Sam'l F ... 122
National Marking Machine Company ... 4
National Resuscitating Apparatus Company ... 95
National Silver Plating Laboratories ... 58
Neale Chemical Company ... 16d
New York Nursery and Child's Hospital ... 56
Northern Hemlock and Hardwood Mfrs.' Assn ... 66d
Northwestern Manufacturing Company ... 63
Northwestern Steel and Iron Works ... 4
Nurses' Outfitting Association ... 100
Oconomowoc Health Resort ... 79
O'Sullivan Rubber Company ... 116
Ostermoor & Co ... 53
Pacific Coast Borax Company ... 110
Para Rubber Products Company ... 59
Parke, Davis & Co ... 6
Peerless Freezer Company ... 79
Peoria Auto-Kot Company ... 50
Pepsodent Company ... 130
Permutit Company ... 75
Pfaffmann Egg Noodle Company ... 16d
Pfaudler Company ... 20
Pick & Co., Albert ... 66, 74, 97, 102
Picker, James ... 73

Continued on page 8.

INDEX OF ADVERTISERS

Continued from page 7.

Powell & Giberson Linen Company 66
Prescott & Son, J. B. 44
Putnam's Sons, G. P. 14
Quaker Oats Company 38, 42
R. U. V. Company 104
Radium Chemical Company 48
Raymond Mfg. Company 60
Read Machinery Company 16c
Rech-Marbaker Company 84
Reid Bros. 16a
Reinhold Manufacturing Company 96
Relay Signal Company 80
Respiratory Apparatus Company 82
Rhoads & Fillman 16
Rice Cereal and Milling Company 20
Richardson, Wright & Co. 96
Rochester Can Company 39
Rosenwald & Weil 51
Ross Royal Company 66b
Royal Baking Powder Company 35
Sachs, Frederick J. 25
Sacred Heart Sanitarium 78
Sarco Company, Inc. 95
Scanlan-Morris Company 98
Security Window Guard Company 92
Sedgwick Machine Works 10
Sharp & Smith 106
Shredded Wheat Company 21
Simmons Company 31
Smith & Davis Manufacturing Company 113
Smith's Sons Company, John E. 52
Southern Aseptic Laboratories 106
Southern Cypress Manufacturers' Association 129
Spencer Lens Company 114
Spengler-Loomis Manufacturing Company 39
Squibb & Sons, E. R. 2
Standard Oil Company 109, 127
Stanley Laundry Supply Company 66a
Stanley Supply Company 115
Stearns & Co., E. C. 30
Stearns & Foster Company 47
Steele Glass Company 30
Stephenson, C. H. 66d
Stewart Iron Works 68
Storm Manufacturing Company 121
Taylor Instrument Companies 103
Terrell's Equipment Company 110
Toch Brothers 56
Thompson Chemical Company 101
Thorner Brothers 65
Thum Company, O. & W. 45
Toledo Technical Appliance Company 108
Towns Hospital, Chas. B. 76
Troy Laundry Machinery Company, Ltd. 96
Underdown's Sons, A. R. 58
Union Wire Mattress Company 122
United Cereal Mills, Ltd. 26
United States Hoffman Company 16d
Utica Steam & Mohawk Valley Cotton Mills 97
Valve Sales Company 60
Van Range Company, John 115
Victor Electric Corporation 71
Vitrolite Company 28
Vonnegut Hardware Company 12
Wander Company, The ..... 3d cover
Wappler Electric Company 72
Washable Name Tape Company 54
Waukesha Springs Sanitarium 78
Welch Grape Juice Company 9
Western Coil Company 72
Westinghouse Lamp Company 119
Wharton, Jos. S. L. 99
Wheatena Company 41
Whitney Company, F. E. 94
Willis Company, Wm. V. 110
Wocher & Son Company, Max 116
Worthington Company 105
Wright Wire Company 16b
Young, H. G. W. 65
Ypsilanti Hay Press Company 38

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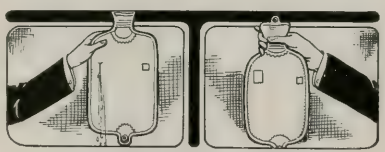


Patch— All Your Leaking, Punctured

HOT WATER BOTTLES

With the Never-Failing, Cleanly

E.Z. SELF CEMENTING SELF VULCANIZING **PATCH**

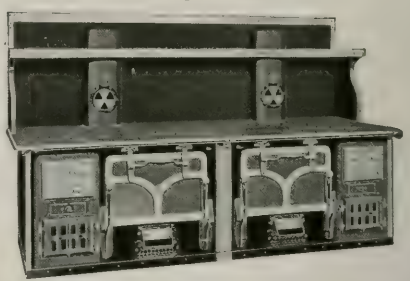
WIDELY used in hospitals everywhere, because so easy and clean to apply—no tedious, sticky messes of glue or cement—just a little touch of gasoline and on goes E. Z. Patch to STAY. During sterilization or boiling it becomes actually vulcanized to the bag; can't peel or tear off. Have some handy—they will save time and money.

PRICES
E. Z. Patches for Hot Water Bottles, home size, four for **25c**; hospital size, twenty for **$1.00.**

THE E. Z. PATCH CO.
Manufacturers of Patches for Surgical and Household Rubber Goods
AKRON OHIO

Born's Institution Range

First and Indispensable



In every kitchen the range is the center of things. It can't be dispensed with or supplanted by any other appliance. Important, then, that it be reliable, is it not? In this respect the BORN has a fine record. It has been on the market for almost forty years, and has successfully demonstrated its qualities in hundreds of hospitals and other institutions.

Sizes and patterns for all requirements

THE BORN STEEL RANGE COMPANY
Makers of Complete Kitchen Outfits
CLEVELAND, OHIO

CHLORAZENE AND PARRESINE

Chlorazene, Dakin's New Synthetic Antiseptic, has met with remarkable success in hospital work, in surgery, and in general practice. The physician or surgeon who has not yet used **Chlorazene** should avail himself at once of this remarkable product, which is replacing with splendid results other less powerful and far more toxic and caustic antiseptics. Send for literature.

Parresine, the improved wax dressing for burns, is making many friends among hospital and industrial surgeons. The remarkable facility with which extensive burns heal under this dressing, and the prompt relief from pain which it affords, has put **Parresine** in the front rank of emergency remedies.

Both **Chlorazene** and **Parresine** have been passed by the Council of Pharmacy and Chemistry of the American Medical Association, and have been ordered by the United States Navy to be placed on every ship. Send for literature.

PACKAGES AND PRICES

CHLORAZENE, Dakin's New Antiseptic. Price, 60 cents per 100 tablets; 55 cents for Hospital Package No. 1, making 4 gallons of 0.25-percent solution.

PARRESINE is offered to the medical profession at $1.25 per pound, postpaid. Usual discounts for quantity orders and to the trade.

One full-size, half-pound cake, with directions, will be sent to any inquiring physician or pharmacist on receipt of 75 cents.

Urge your druggist to stock **Chlorazene** and **Parresine** for your convenience. If he cannot supply you, order direct.

THE ABBOTT LABORATORIES

CHICAGO - NEW YORK

SEATTLE SAN FRANCISCO LOS ANGELES TORONTO BOMBAY

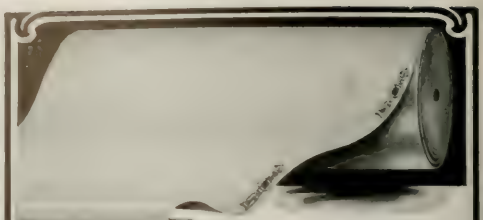
From the heart of highest grade selected wheat. All of the nutritious and palatable properties of the grain in a food particularly suitable for the sick or convalescing.

HECKERS'
Cream Farina

is high in carbohydrates and proteids, easily digested and extremely easy to prepare. Its flavor not only appeals to the convalescent, but it never grows monotonous, regardless of the frequency with which it is served.

Know more about this ideal hospital food. Send for sample packages and an analysis. Write

THE HECKER CEREAL CO.
DEPARTMENT D
New York City, N. Y.



Do You Sterilize Your Rubber Sheeting?

You can do so with perfect confidence if your beds are covered with

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THE PERFECT RUBBER SHEETING

whether you boil, steam, or scrub with germicide or disinfectant.

Royal Archer will *not* grow soft and sticky; it will *not* crack or peel; it will *not* discolor water, sheet, or mattress under severe and repeated sterilization.

We have boiled it as long as thirty hours without loss of color, strength, resiliency, toughness.

Royal Archer *looks* different, *feels* different and gives a new and different service, because it is different in quality and methods of manufacture.

Samples and a copy of the strongest guarantee ever written for a postal.

Sold by all good dealers everywhere

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Instant Exit

in case of fire

is particularly essential in Hospitals, where a few seconds may mean the difference between safety and disaster. Those few seconds are always in your favor where exits are equipped with

Write for Catalog 12-L—FREE

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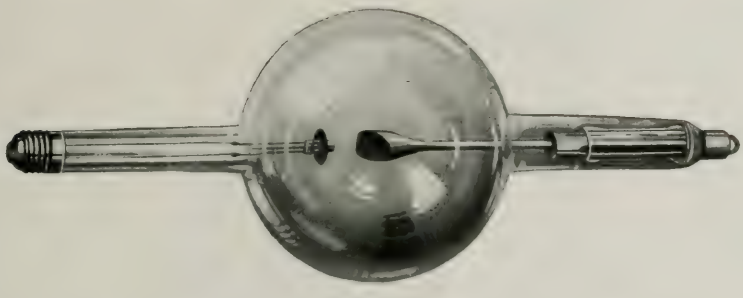
Self-Releasing Fire Exit Latches

VONNEGUT HARDWARE CO. INDIANAPOLIS, IND.



The Coolidge X-Ray Tube

is the result of developments along scientific lines in the research laboratory of the General Electric Company.

Throughout the progress of all investigations the exacting needs of the roentgenologist have been considered.

The simplicity, flexibility of control, and long life of Coolidge X-Ray Tubes is the result.

Coolidge tubes are furnished with three sizes of focal spots:

Fine for fluoroscopy and the best radiographic work where heavy currents are not required.

Medium for general radiographic work.

Broad for therapy and for the most rapid radiographic work which requires heavy currents.

Coolidge X-Ray Tubes will be exhibited at the coming meeting of the American Medical Association.

More information concerning the tube can be obtained by writing to our Schenectady office.

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General Office: Schenectady, N. Y.

Sales Offices in All Large Cities

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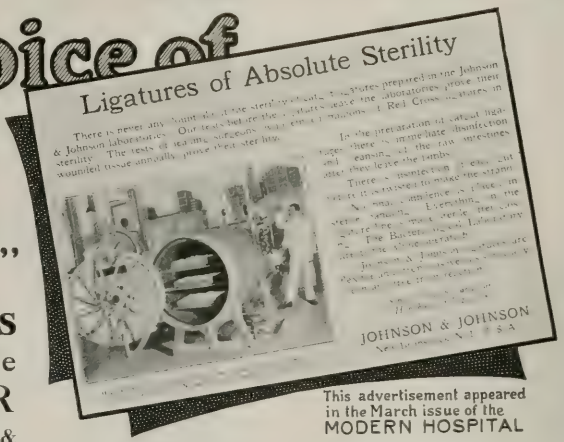
The choice of experts

The
"AMERICAN"
Kinyoun-Francis
Steam and Formaldehyde
DISINFECTOR

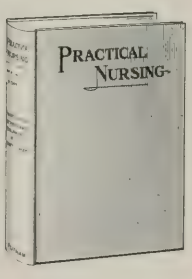


This advertisement appeared in the March issue of the MODERN HOSPITAL

as may be seen from the Johnson & Johnson advertisement shown herewith, was pictured in the advertisement to demonstrate the modern, complete, and efficient manner in which Johnson & Johnson Ligatures are sterilized.

Sterility entering into so many of the articles put out by Johnson & Johnson, it should be self-evident that this concern is well informed on all that pertains to efficient sterilization, and the fact that they use the "AMERICAN" DISINFECTOR should evidence the expert's regard for the "AMERICAN" LINE.

AMERICAN STERILIZER COMPANY, ERIE, PA.



TWO BOOKS THAT SHOULD BE ON A CONVENIENT SHELF IN EVERY HOSPITAL

and two books that every hospital superintendent and teaching graduate or pupil nurse will find well worth while reading. They are

PRACTICAL NURSING

By A. C. Maxwell, Superintendent of School of Nursing, and by A. E. Pope, formerly Instructor in the School of Nursing, Presbyterian and St. Luke's Hospitals, San Francisco, Cal.

Treating on the following and other subjects in a thorough and educational manner, this book is helpful to both the teacher and the student as well as those in charge of nurses. Subjects: Qualifications for a Nurse; Etiquette, etc.; Bacteriology; Proper Ventilation in the Hospital; Care of Ward; Bedmaking and Lifting Patients; Care and Comfort of Patients; Bathing Patient; Symptoms; Counterirritants and Local Applications; Administration of Medicines; Preparation of Patients; Bandaging; Strapping and Bandaging; Care of Patients Before and After Operation; Surgical Dressing; Operating Room Technic; Food, Massage, References, and others.

Third Edition. Rewritten and Enlarged. Over 110,000 copies sold. Illustrated. Over 880 pages. Price, $2.00.

ANATOMY AND PHYSIOLOGY

By Amy E. Pope, formerly Instructor in the School of Nursing, Presbyterian and St. Luke's Hospitals, San Francisco.

The object of this work is to provide a text-book containing more physiology than the books on anatomy and physiology hitherto provided for nurses. The book is very fully illustrated and contains a number of questions for each chapter; also an extensive glossary, which includes a detailed explanation of all the chemical and physical terms used.

CONTENTS

Nature of the Composition of the Body—Divisions of the Body—Tissues—Bone or Osseus Tissue—The Joints or Articulations—Muscular Tissue—Nerve Tissue and the Nervous System—Membranes—Circulating Fluids of the Vascular System—The Respiratory Organs and Respiration—The Glands—The Digestive System—Food, Digestion, Absorption—Metabolism, Heat Regulation—Elimination—The Skin and Its Appendages—Sensations—The Eye and the Sense of Vision—The Ear and the Sense of Hearing—The Organs of Generation—Development, Senescence, Physiology of Sleep.

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The Surgery of War Has Taught Us the REDINTOL Method of Dressing Wounds

From the war hospitals of France came reports of a new compound for dressing burns, granulations, etc. "Simply wonderful" summarizes the reports.

At the request of American surgeons Johnson & Johnson have undertaken the manufacture of a similar compound. It is called REDINTOL. American surgeons and hospitals are now duplicating the results attained in the French war hospitals.

REDINTOL has been used in hospitals and private practice for several months. Surgeons have been surprised at the results. They have found that the dressing is easy to apply, that pain is relieved almost immediately, that the dressing can be removed without disturbing the wound and that healing is rapid.

REDINTOL is a mixture of paraffine waxes and resins having dissimilar melting points, in a solid brown wax-like cake.

REDINTOL is analgesic. It is a plastic and elastic dressing, adjusting itself to the injured area.

REDINTOL forms a shell or cover under which there is a rapid reformation of new skin, without the usual scarring, with lessened contraction of the skin and tendons. It makes skin grafting unnecessary.

REDINTOL has also been found useful in the treatment of chilblains, frost bites, bruises, excoriations, and in conditions of raw, denuded, or inflamed areas. It is believed that many other uses will be developed when the effects of this compound shall have been fully understood.

REDINTOL is supplied in one-pound cakes, and sold by Druggists and Physicians' Supply Houses.

A four-page circular, descriptive of REDINTOL and its method of application, sent free on request.

Johnson & Johnson
New Brunswick, N. J., U. S. A.

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of a food is almost the first consideration in selecting a substitute for breast milk in Infant Feeding, where for any reason it is deemed necessary to resort to artificial feeding.

Gail Borden
EAGLE BRAND CONDENSED MILK
THE ORIGINAL

has a high nutritive value—possessing at the same time the added advantage of being a clean, wholesome and easily prepared food, which is dependable at all times.

Samples, Analysis, Feeding Charts in any language, and our 52-page book, "Baby's Welfare," will be mailed upon receipt of professional card.

Borden's Condensed Milk Company
"Leaders of Quality"
Est. 1857
New York

Majestic
TRADE MARK
THE MAJESTIC CRINKLED DIMITY HOSPITAL QUILT
IS MADE OF FINE YARNS LIGHT IN WEIGHT AND
YET SUPERIOR FOR WEAR . . . .
FOR SALE BY RHOADS & FILLMAN PHILADA

Majestic Dimity Quilts

THE best and most desirable Hospital Quilt. We are constantly shipping them all over the United States. It does not matter where you are—they will reach you promptly if you send us your order. We always have the following sizes in stock for immediate delivery: 62"x90", 72"x90", 80"x90".

THEY are approved by physicians for hospital and institution use. They are sanitary and superior for wear. They are positively the handsomest and best crinkled quilts ever produced.

THIS illustration is a facsimile of the ticket on every quilt—look for this in buying. The merits of these quilts will be evident to you on examination.

Wholesale Only

RHOADS & FILLMAN

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The Leonard Valve has a solid metal Thermostat Control. There are no levers, stuffing boxes, multiplying devices, or diaphragms in the valve.

It is manufactured in three sizes—Model B-10, B-40, and B-120—which have sufficient range in volume supply for all fixtures in a hospital requiring tempered water.

All models manufactured by us contain the Anti-Scalding and Anti-Chilling feature.

The Leonard Valve is complete in itself, efficient in performance, economical in operation, and durable in wear.

Castings and working parts are of bronze.

Write for our booklet on the "Leonard Valve."

LEONARD-ROOKE COMPANY PROVIDENCE, R. I.

FIVE PLUS

By five standards may the hospital supply business conducted by Reid Brothers be judged:

Unvarying Quality.
Unending Service.
Dependable Prices.
Unfailing Courtesy.
A Standard Guarantee.

PLUS
Satisfaction

For into every transaction conducted by this old, established firm, must enter the element of personal satisfaction. The five fundamental elements of our business could not long continue without the last. To us the "PLUS" is the most important part.

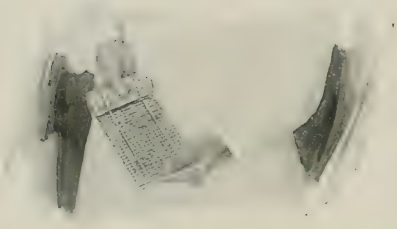
REID BROTHERS
MANUFACTURERS OF
"Hospital Supplies of Merit"

Seattle, Washington
3rd Ave & Yesler Way.

San Francisco, Calif.
585 Mission Street

LET US SEND YOU THIS EXCELSIOR UNIVERSAL WIRE GAUZE SPLINT

Without question the most desirable splint for general use
Indispensable for certain applications



Delivered in air-tight paper cartons, rolled like roller bandage, in two sizes, 4x30 inches and 5¼x36 inches.

Easily molded to fit any part of body, and, when retained in place by bandage, gives complete protection and immobility.

Equally serviceable to experienced surgeon for temporary treatment and to the novice in applying first-aid dressing.

The EXCELSIOR Universal Wire Gauze Splint is being used extensively in war surgery. It has been tested thoroughly and found to be an intensely practical splint.

Regarded as among the great advances in the mechanics of surgery achieved in recent years.

May be cut with heavy scissors or bone forceps when it is desired to have an opening through which dressing can be applied. Lends itself readily to uses in suspension, wound irrigation, ventilation, and inspection.

Lighter and occupies less space than wooden or other ordinary splint, and costs a fraction of price of less desirable varieties.

Send for descriptive booklet A and sample splint

WRIGHT WIRE COMPANY

WORCESTER, MASS., U. S. A.

BRANCHES

Boston New York Philadelphia Chicago San Francisco

The READ JR.

Fully equipped Kitchen Machine with MOTOR

$150.00

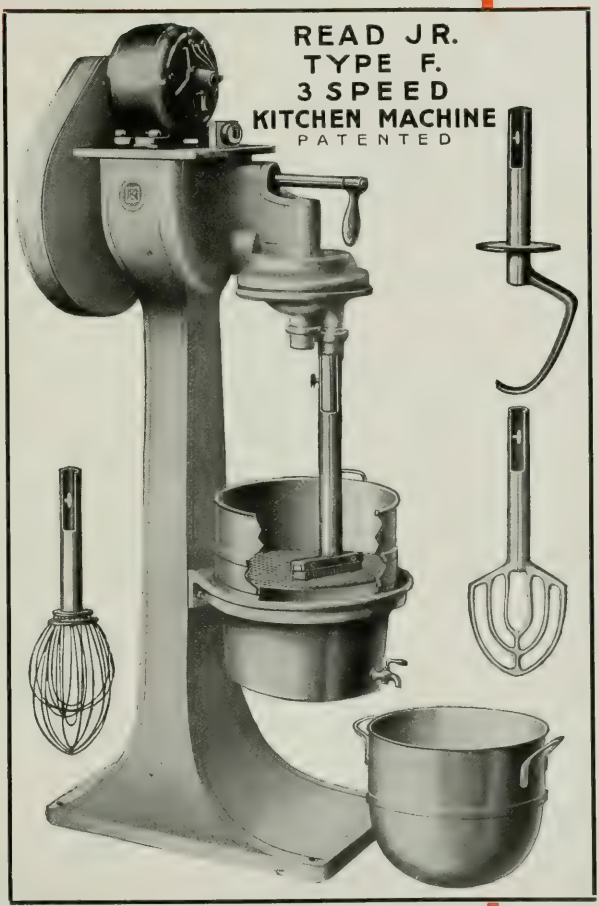
A guaranteed Read Machine, doing all the work of the larger models A, B, and D, but with a capacity limited to 15 quarts.

Can be attached to any electric light socket, saving the expense of wiring.

Every Hospital and Institution can profitably use this Machine. It is practical, efficient, and economical.

Used for Pastries, Doughs, Soups, Purees, Dressings, etc.

Send at once for illustrated descriptive Booklet. State electrical service when ordering Machine.



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Pfaffmann's Products

American products made in the Sanitary way

BEST ADAPTED FOR HOSPITAL PURPOSES, because they are machine made, dried, and packed; not touched by a human hand during entire process of manufacture.

MACARONI, The IDEAL FOOD for the SICK

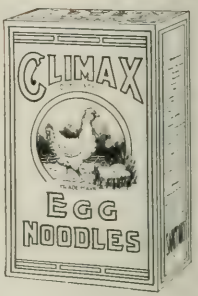
Better than beef or mutton, digested easily and quickly, the best substitute for meat—Noon or Evening Meals.

ANALYSIS

Water	Protein	Fat	Carbohydrates	Ash	Fuel Value per pound
10.3	13.4	.9	74.1	1.3	1,625 cal.

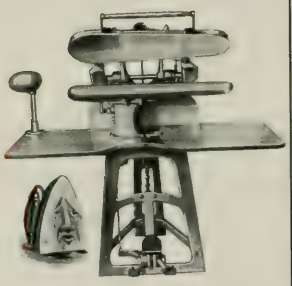
IN PACKAGES OR BULK

Ask for Free Sample Package, and DO IT NOW, for we are sure PFAFFMANN'S PRODUCTS will please you.



THE
PFAFFMANN EGG NOODLE CO.
F. BECKER, Pres.
CLEVELAND, OHIO

SANITARY
IRONING



That is to say, by adopting the Hoffman patented method of ironing you select the quickest, cleanest, and most practical process as substitute for the old-time sadiron way.

One operator and special hospital Model RY Standard 38-inch will save the labor of two lady hand-ironers.

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UNITED STATES HOFFMAN COMPANY
SYRACUSE, N. Y.

Originators of Steam Clothes Pressing Machines

FOR FUMIGATION

Use the Permanganate of Potash Substitute

FUMIGATO

Strongly Indorsed by

LEADING HOSPITALS and INSTITUTIONS

Indorsements, Laboratory Reports and Samples Furnished on Request

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$20.00 per gross boxes, 6 oz. each—F. O. B. Cleveland

2.00 per dozen boxes, 6 oz. each—F. O. B. Cleveland

Direct or through your Jobber

The Easy Way — The Sure Way
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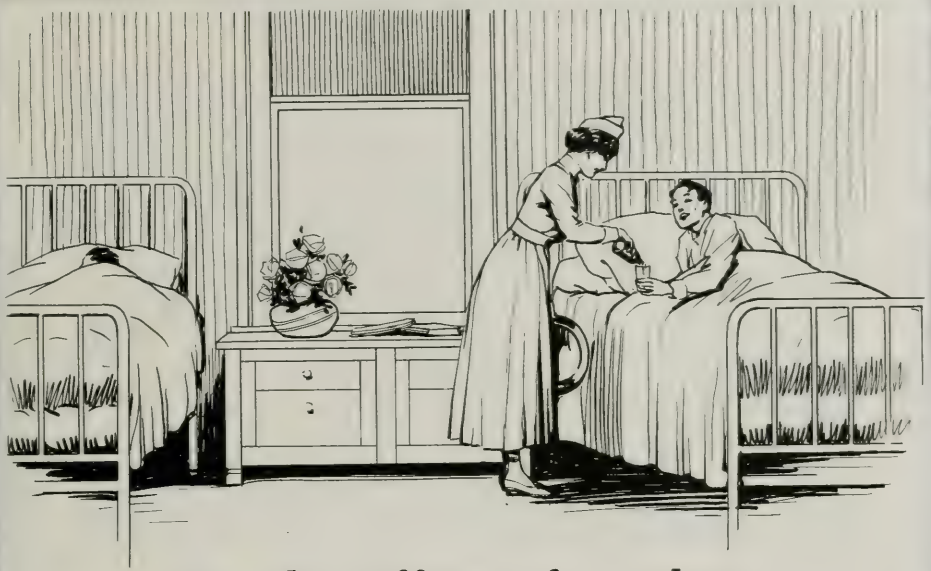
Fire Danger Eliminated — Certainty of Results

To *properly* and *thoroughly* fumigate a room of 1,000 cubic feet space, one-half pound of permanganate of potash to 1 pint of liquid formaldehyde is required, and, at $5.00 to $6.00 per pound, potash is prohibitive in cost for fumigation purposes. The contents of one box of FUMIGATO, costing 14 cents per box, will liberate all the gas in 1 pint of liquid formaldehyde.

Satisfaction Guaranteed
Superior to all other methods of fumigation

THE NEALE CHEMICAL CO.

1104 Prospect Avenue — CLEVELAND, OHIO



Try the effect of a glass of Clicquot Club Ginger Ale

Things which sick people like and which are also good for them are not too common. Clicquot Club Ginger Ale is one of the best of them.

Its sparkling effervescence and snappy flavor give just the mental and physical stimulus they need—make them *want* to get well.

Clicquot Club Ginger Ale is absolutely pure and entirely non-constipating. It is made of the highest quality ingredients obtainable—pure, clean sugar, genuine fruit flavors, and clear, sparkling spring water. It contains nothing of a deleterious character.

Order a case of Clicquot Club Ginger Ale from your supply house today.

The Clicquot Club Company
Millis, Mass., U. S. A.

Clicquot Club

PRONOUNCED KLEE-KO

GINGER ALE

Nurses' Dining-room, Cincinnati General Hospital

TILE FOR DINING-ROOMS

Tile on dining-room floors and walls must ever be a source of real satisfaction, because it unfailingly imparts that distinctive note of sanitary excellence and cheerfulness which is so pleasing and satisfying.

Genuine satisfaction must also result from the knowledge that it retains every one of its many good qualities indefinitely, and shines forth in its original brightness and neatness anew after each simple washing.

To every dining-room Tile means cleanliness—in reality and appearance—extreme durability and decorative enrichment.

The cost is reasonable, and the value certain.

AN ILLUSTRATED BOOK

explaining in detail the advantages of Tile for all parts of the hospital will be sent free to hospital officials on request.

THE ASSOCIATED TILE MANUFACTURERS

BEAVER FALLS, PA.

Constipation of Infants

This symptom of an error in diet should have early attention, for it may mean the beginning of an annoying digestive disturbance. The chief errors in diet that are responsible for this condition may be corrected by the employment of

Mellin's Food

as the milk modifier, for Mellin's Food has a special field of usefulness in adjusting the diet to overcome constipation of infants.

We have prepared a pamphlet upon this subject which will be sent to physicians, upon request.

Mellin's Food Company, **Boston, Mass.**

"NATIONAL" HIGH PRESSURE STERILIZERS

Sold by practically every reputable surgical house in the United States.

Stocks carried in practically every large city.

Sold under an absolute guarantee of satisfaction.

Destroy all germ life. Suitable for all active surgical work in hospitals or elsewhere.

Work anywhere. Three sizes—Doctor's, Medium, and Hospital—$55, $77, and $132, equipped with gas or gasoline burner or steam coil, as desired.

Reliable—and built by a big concern whose standing is beyond question.

Write for full description.

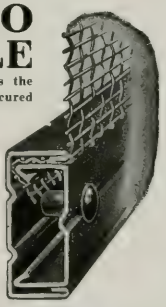
Northwestern Steel and Iron Works

Capital Stock, $200,000

760 Spring Street EAU CLAIRE, WIS.

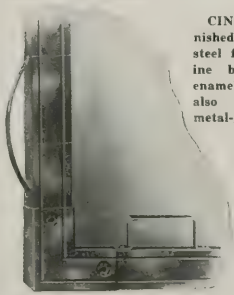
FLY SCREENS

CIN-MAN-CO REWIREABLE



The illustration to the right shows the manner in which the wire cloth is secured to the all-metal frame. Note that the wire cloth is held by rounded corners, and the absence of all cutting edges.

The illustration below shows the improved detachable spring, easily replaced, and the stationary bronze lift which is out of the way of the window sash. The corners are reinforced by heavy inside angles, making this the most substantial screen on the market.



CINMANCO SCREENS are furnished in all-copper or galvanized steel frames, and filled with genuine bronze or galvanized black enameled wire cloth as desired. We also manufacture the easy-slide, metal-guide, wood-frame screen.

Satisfactory service afforded wherever used

Write for descriptive booklet and prices

CINCINNATI FLY SCREEN CO.

CINCINNATI, OHIO

There is no repulsive odor from a

PFAUDLER
Glass Enameled Steel LAUNDRY CHUTE

for it can be thoroughly cleansed.

Its fused-in lining of Glass Enamel is non-absorptive, rust-proof, and glossy, so that infectious and foul deposits left by the soiled linen in passing through it are washed away —into the sewer—by an occasional shower of hot water from the flushing ring at the top.

An outlet through the roof keeps it ventilated and dries it quickly.

The plate glass and nickel doors close water-tight, making an entirely enclosed route for soiled linen and clothing.

It costs nothing to operate, and it is utterly improbable that it will ever have to be torn out, or even repaired.

It is the only chute that will meet your ideals.

We can prove it to you. May we?

THE PFAUDLER CO.
ROCHESTER, N. Y.

NEW YORK 110 West 40th St.
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SAN FRANCISCO, 512 Sharon Bldg.

An old-fashioned food prepared in a new way ready for quick cooking—such is

KRE-MO Sterilized RICE

KRE-MO Cereal will tend to restore those equal conditions that belong to a well-balanced system, as it possesses healing and curative properties to a greater degree than other cereals owing to its digestibility and nerve-building qualities.

An especially good food for irritable and nervous people.

Liberal samples of this new product supplied for trial.

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RICE CEREAL AND MILLING CO.
FORT WAYNE, IND.

BED SPREADS

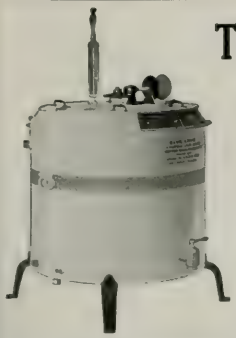
"RIPPLETTE"
Bed-Spreads

with the ripple woven in. They wash like a sheet, and are made in all sizes. *Reversible.*

Bates
Crochet Bed-Spreads
Well known as *Bates* "Green Ticket".
All sizes and qualities.

Our Sample Book of
"Bliss-Fabyan Fabrics"
for Institution use, sent to purchasing agents on request

BLISS, FABYAN & CO.
Boston-New York-Chicago



THE HOSPITAL PASTEURIZING PLANT

FOR SAFE MILK
and
SURE PASTEURIZATION

Public health officials, which includes hospital administrators, recognize the necessity of pasteurization of raw milk, not only for **safety,** but **economy.**

Safe milk is as necessary as **pure water.**

Three-, five-, and ten-can capacity plants, sufficient to take care of the needs of the smaller as well as those of the largest institution.

We guarantee the results from the ***BLUE LINE PASTEURIZER*** where our instructions are followed, for it has been proven satisfactory under the most exacting requirements of the Government and satisfies the needs of the dairyman. All mechanical features unreservedly guaranteed.

The Blue Line Pasteurizer does not injure the cream line and improves the flavor.

As the pasteurization plant in the hospital varies so much from the requirements of the dairy, we solicit your inquiries freely, on which we can determine the particular needs of your institution.

Write fully, as there is no obligation attached.

JOHN W. LADD COMPANY

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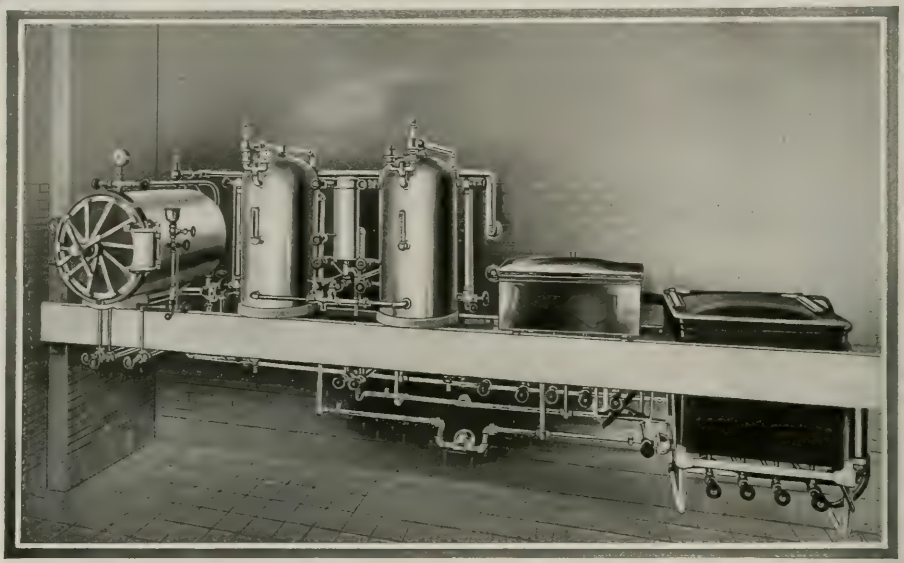

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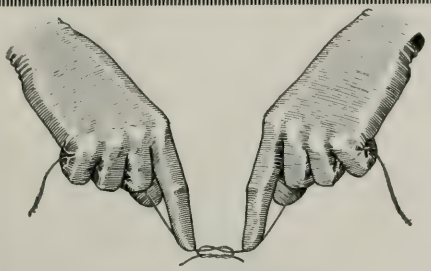

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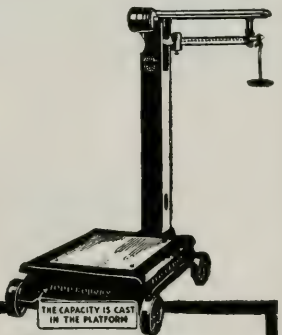

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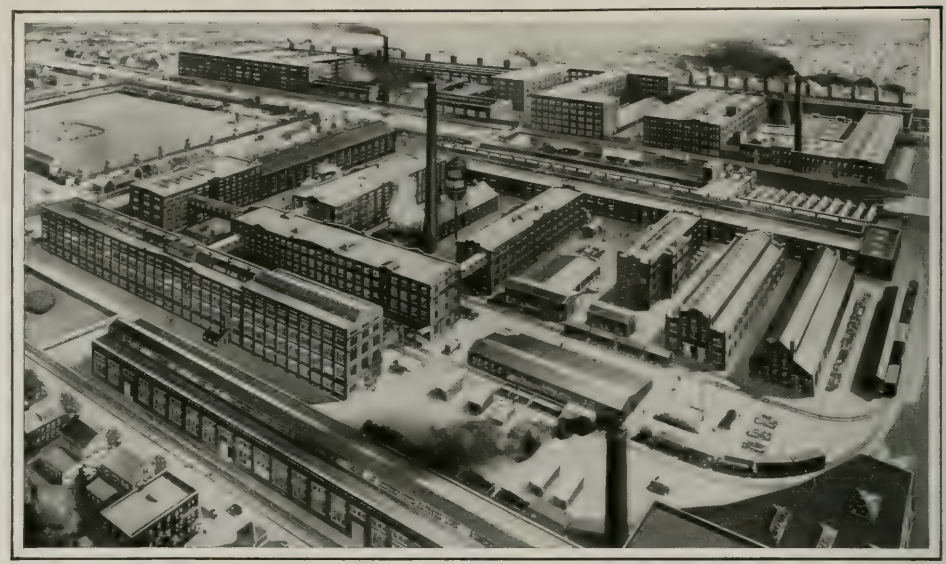

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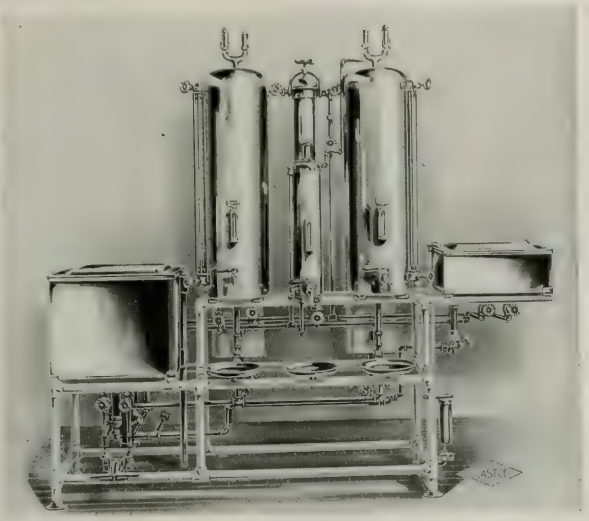

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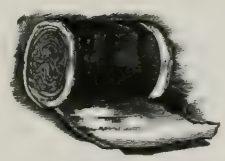

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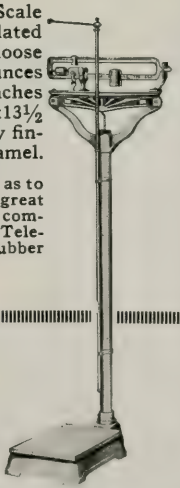

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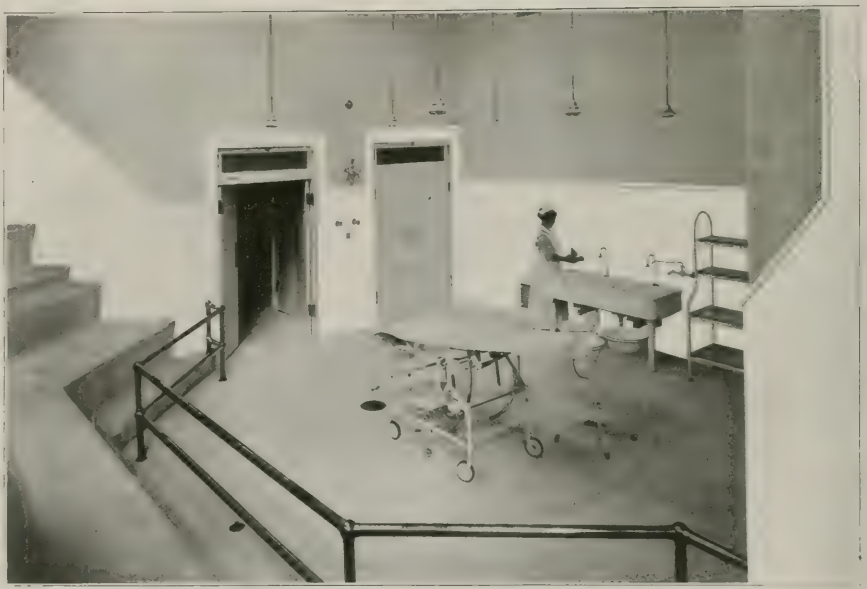

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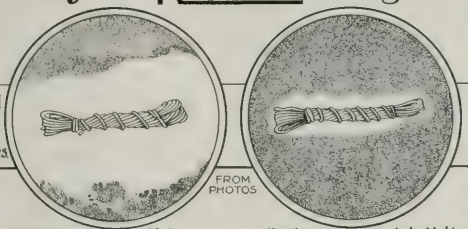
Germicidal Efficiency of KALMERID Catgut as compared with Iodized Catgut

REG. U.S. PAT. OFF.

The lighter areas about the imbedded sutures represent zones of no bacterial growth, while the darker portions in the plates are masses of staphylococcus colonies.



Kalmerid catgut imbedded in agar infected with Staphylococcus pyogenes aureus.

Iodized catgut sutures imbedded in the same medium. Note the proximity of the staphylococcus colonies.

The marked inhibitory power of Kalmerid catgut, as compared with iodized sutures, is strikingly shown in the above photographs. It is evident that Kalmerid sutures exert in the tissues a far greater antiseptic action than do the usual iodized sutures.

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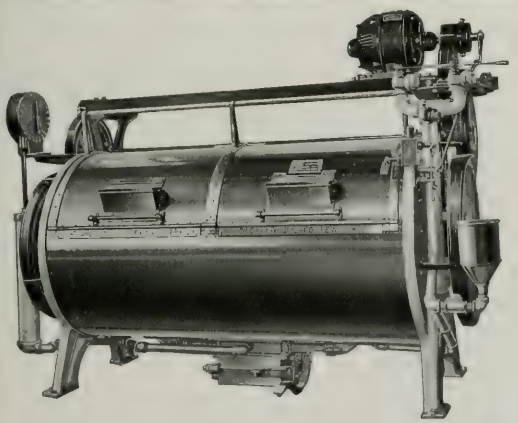

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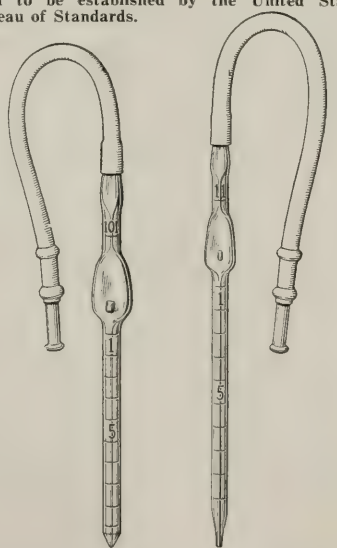

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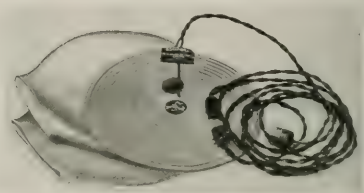

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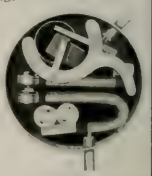

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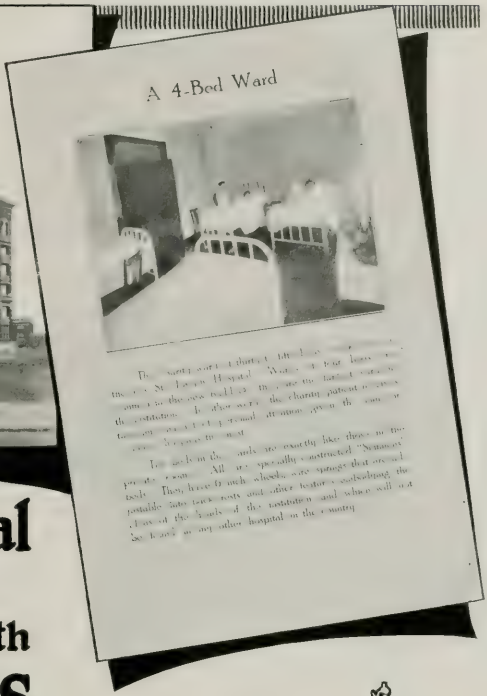

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Enlarged View of Screw Cap with Unlosable Washer, showing how the Regular Flat Ring Washer is kept in place by the Maroon Rubber Cap and cannot drop off and become lost. Washer Patented January 23, 1906

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"Progress" Oblong Ice Bag

Made of Cloth-Inserted Maroon Rubber

One Size Only, 7 x 11 inches

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For wearing qualities this Bag cannot be equalled and it is, without exception, the finest Ice Cap made for heavy hospital usage. Its shape makes it suitable for applying to any part of the body, while the pleats or fold gives it a large bottom surface.

"Progress" Round Ice Bag

Made of Cloth-Inserted Maroon Rubber

One Size only, 9 inches Diameter

Patent Nos. 680,610 and 810,784

This bag is similar in construction to the "Progress" Oblong Ice Bag described above, the only difference being that this is a little smaller and round in shape.

"Perfection" Ice Bags

Upper Part Made of Cloth-Inserted Maroon Rubber, and Lower Part of All-Rubber Stock

Three Sizes, Small, Medium and Large

Patent Nos. 660,014 and 810,784

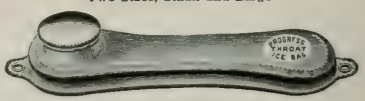
The "Perfection" holds more ice than other bags. The box-like pleats permit it to assume a square shape when filled, thus allowing the bottom surface to lie flat when in use.

Small Size, 5 x 9 inches
Medium Size, 6 x 11 "
Large Size, 7 x 13 "

"Progress" Throat Ice Bags

Made of Cloth-Inserted Maroon Rubber

Two Sizes, Small and Large



Patent Nos. 680,610 and 810,784

Small Size, 10 inches long
Large Size, 12 " "

"Army and Navy" Combination Ice Bag and Helmet

Made of Cloth-Inserted Maroon Rubber

Fig. 1

Fig. 2

Fig. 3

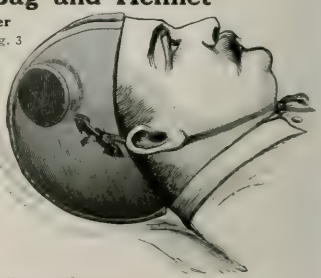


Fig. 1 shows how the Helmet may be flattened out to form a Regular Round Ice Bag. Fig. 2 shows the Bag folded into Helmet shape. Fig. 3 shows how the ice may be centered over the base of the brain. The loops on the Bag make it easily tied to the head.

Large Size, 12½ inches in diameter; Small Size, 10 inches in diameter

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THE MODERN HOSPITAL

A Monthly Journal Devoted to the Building, Equipment, and Administration of Hospitals, Sanatoriums, and Allied Institutions, and to their Medical, Surgical, and Nursing Services

Vol. VIII *June, 1917* No. 6

THE COOK COUNTY TUBERCULOSIS HOSPITAL, OAK FOREST, ILL.*

Benefits of the Graduated Labor System—Patients Perform Necessary Labor of Institution Under Advice and Observation of Their Physicians—Pleasure and Satisfaction Felt in Accomplishing Tasks—Open-Air Treatment Afforded in Cottages

By HENRY L. BAILEY, General Superintendent, Oak Forest, Ill.

THE Cook County Tuberculosis Hospital at Oak Forest, Ill., stands as a monument to the generous and humane instincts of Cook County's residents. Situated twenty miles from the business center of Chicago, its location is ideal. It is on the main line of the Rock Island system and has ample railroad facilities. Built on the county's farm of some 350 acres, adjoining the county infirmary, among shady groves of oak, the cottages are all that modern architecture could suggest, and no pains have been spared to bring and keep the furnishings and equipment of the various buildings up to the highest standard from an esthetic as well as a scientific point of view. Beautiful lawns and flower beds are everywhere to be seen, never lacking exacting care and attention, and cleanliness to an extreme degree prevails in every quarter of the premises. The tables have all the good things required. Under the direction of the physician, the patients are treated with homelike kindness, and it is no wonder that such hearty cooperation and friendship is apparent from every side.

The medical staff is composed of ten eminent physicians, and fifty competent nurses minister to the sick. At present there are nearly seven hundred patients taking treatment at the hospital.

To be convinced of the steady growth of public confidence in the Cook County Tuberculosis Hospital, one has only to glance at the liberal advance in yearly admissions since the establishment of the institution about six years ago:

1913	765 patients admitted
1914	1,136 patients admitted
1915	1,557 patients admitted
1916	1,694 patients admitted
1917 (first four months)	409 patients admitted

In the early days of this hospital the men patients outnumbered the women in the ratio of 11 to 1. Today the women patients constitute nearly 27 percent of the hospital's population.

Beneficial results obtained from introducing the latest scientific methods for the treatment of tuberculosis patients overcame the dread of institutional care and led many sufferers to seek admission. The open-air treatment in the cottages seems to appeal chiefly to women and has proved especially beneficial to them.

Following the usual hospital admission routine, with strict instructions regarding sputa and coughing, the newly admitted patient is sent to the observation ward, where he is kept under careful watch for two or more weeks, during which time he is taught the routine of the institution, including most careful instruction concerning hygiene, and regularity of hours of rest and exercise. Physical examinations are made and recorded during his sojourn in this ward, the sputa and urine are tested, and other laboratory examinations are made and recorded in cases so requiring. In addition to these records, those of general, industrial, and sociological information, together with the personal history of each par-

*The views of the hospital which accompany this article are shown by courtesy of Messrs. Schmidt, Garden & Martin, the architects of these buildings.

ticular case, are carefully prepared and filed for constant reference and further study. Physical and sputa examinations of every case are made at periods of thirty to sixty days, and these are carefully studied, classified, and filed with the record of the case.

About 70 percent of the cases are far advanced when received at this hospital. For these patients the institution is a home with as much individualization, kindness, and care given as the routine and discipline and necessary hygiene of a large institution will permit. Here the patients obtain the benefits of hospitalization that would otherwise be possible. In this sense it is a great isolating hospital for those who might infect others, as well as a great school, not only teaching the tuberculous to avoid infecting others, but also in a broader sense educating physicians, nurses, patients, employees, and the community at large.

In the few moderately advanced and incipient cases, sanatorium treatment is used to advantage, adding "graduated labor" as advocated by Dr. M. Patterson, of Frimly, England; tuberculin is employed in selected cases; solarium treatment for glandular and bone cases; artificial pneumothorax and other operative measures are auxiliary means of treatment to the usual fresh air, food, and rest.

Fig. 1. The Cook County Tuberculosis Hospital at Oak Forest, Ill.

The "graduated labor" plan is carried out by applying the principles of auto-inoculation worked out by Dr. Patterson. During the early stages of tuberculosis, rest is necessary to check the progress of the disease, but rest weakens the muscles and exercise is needed to restore them so that the patient may be able to perform light work.

This is probably the first institution that has had graduated labor patients do the menial work of the institution under strict medical supervision. Necessary and useful labor has long been employed, but it has not been under careful, efficient medical supervision; the urgent, sanitary needs of the hospital, rather than the good of the patient, seemed uppermost. Under graduated labor this has all been changed. The exercise of patients is not a haphazard assignment; it is a daily prescription from the physician, given as a therapeutic measure, not as a labor that must be accomplished as a sanitary necessity.

"Cured, but unfitted for labor," was the criticism and actual logical outcome of the old plan. Under graduated labor it has been transformed to "Cured and fitted for work."

The patients at this hospital are now doing the necessary housekeeping duties of the cottages, building and cleaning walks, excavating, laboratory work, clerical duties, individual sewing, ironing and needlework, gardening, care of lawns, and wickerwork, besides many other light chores and labor; sweeping, scrubbing, window-washing, cleaning of bathtubs and toilets, woodwork, etc., carrying in coal, together with the digging and moving of a clay bank, the building of cinder walks, and clerical work on charts and in the laboratory, are some of the occupations of the men; these tasks are alternated with walking from fifteen minutes to two hours once or twice daily. The women clean woodwork and sinks, polish brass, sew, crochet, knit, mend, and do clerical work on records and in the laboratory, besides walking prescribed distances.

All this is done as a personal prescription from the physician. No demur has been noticed, but instead a new spirit of contentment and eager anticipation has taken hold of the patients, and the approach of the hour scheduled for the performance of these prescribed undertakings is looked forward to with much delight. Having thus performed the task assigned to him, always under the careful guidance of the physician in charge, the patient seems to realize that he is homeward bound toward health, liberty and the pursuit of happiness, as well as a useful life. Alternating with the light labors mentioned, the walking exercise is not overlooked, and is gradually increased from time to time, as the particular case requires.

It is our policy to have the patients' labor expended in constructive work. This means that there is a reason for all the work that is done—that something is being accomplished. Carrying buckets of clay back and forth from one pile to another is not conducive to interest and healthful content among the workers. To prescribe a walk

around one path time after time, day in and day out, is not the way to secure cooperation. Our patients are digging away at an unsightly clay bank and filling a gaping hole at the end of one of the cottages. They are walking on the country roads with a nurse or appointed captain, who acts as a monitor. They have built a toboggan slide

Fig. 2. A portion of the south front of Oak Forest hospital, showing the outside of the sleeping porches.

on a side hill. The zest and enthusiasm manifested in all of these undertakings is a source of great satisfaction to those in charge. Recreation in the form of walks, games, etc., and the presence of the physician working with them proves a great incentive in the continuation of the exercise.

The plan, as outlined in a paper read before the Lake County Medical Society by Dr. Bay, is as follows:

"After the patient has been in the institution at least two weeks and is making his own bed, going

Fig. 3. An interior view of one of the sleeping porches, Oak Forest.

to the dining hall, and walking fifteen minutes twice daily, he is sent to the Cottage Department. Here he is instructed in the use of his thermometer, in taking his pulse and the recording of same on his chart. He is also told the danger signals of an 'overdose' and instructed that should he have a headache, malaise, chest pains, a temperature of 99 degrees, or any other untoward condition that he might consider a sufficient reason, he is to go to bed and notify his nurse. He is not to resume his exercise until same is again prescribed.

"After these instructions, he is on 'rest'; that is, lies down or sits in his sanitarium chair three days, but is allowed to take his meals in the dining hall. After three days (with a normal temperature), he is given fifteen minutes' walk in the morning. After he has been on thirty minutes' walk for six days, he is given, in addition fifteen minutes' light cleaning, and this, or the walk, is increased five minutes every third or fourth day until he is doing two hours' light cleaning in the morning and one hour to one and one-half hours' walk in the afternoon, when, in addition, he enters the 'bucket brigade,' or sweeping or mopping gangs. In the 'bucket brigade' he carries (on the present piece of work) ten pounds of clay, five trips, seventy-five feet, increasing one daily to thirty-five trips, when he is given an ordinary light shovel and helps fill the buckets for his companions, commencing thirty minutes a day and

Fig. 4. One of the tuberculosis cottages, Oak Forest.

increasing five minutes a day. The patients are instructed to carry one bucket with one hand and alternate with the other.

"This plan of work is original with this institution, and every sanitarium must work out its own problem, based on the kind and character of the patients and the work that is available."

Very noticeable is the increasing appetite and weight of the patients of this hospital, coupled with a striking picture of contentment and satisfaction throughout the exercise classes. No complaints are ever made concerning the food. This is particularly noticeable among the young women who, as tuberculous patients, are notoriously poor eaters. It requires an appetite to enjoy food, and with their time occupied in useful work they eat their meals with a relish which is marvelous, when compared with patients before this graduated labor system was introduced.

I have never known persons who exposed themselves for years to constant interruption who did not muddle away their intellects by it at last. The process with them may be accomplished without pain. With the sick, pain gives warning of the injury.—Florence Nightingale, "Notes on Nursing."

HISTORY OF OCCUPATIONAL THERAPY*

Occupation for Patients Advocated by Benjamin Rush in the Eighteenth Century—Many in Early Times Recognized the Therapeutic Value of Work—Early Work of Bethlehem Hospital Abroad and McLean Hospital in This Country

By WILLIAM RUSH DUNTON, Jr., Assistant Physician, Sheppard and Enoch Pratt Hospital, Towson, Md.

MY subject is a rather big one in that it requires a tremendous amount of looking over journals, hospital reports, and other publications, which work I have not yet completed to my satisfaction. I have, however, come across some very interesting records of men who in the past have advised work as a therapeutic agent in the treatment of mental diseases. The earliest which I have found is that of Benjamin Rush. In 1797 he wrote a letter to the managers of the Pennsylvania Hospital, advocating that certain forms of labor be given to the patients, as it would be for their benefit.

In 1813 in another letter to the managers he reiterates his advocacy of work as a therapeutic measure, and makes a number of other recommendations which are quite modern in their tone.

As yet I have been unable to spend much time looking up foreign sources, so I have confined myself chiefly to collecting references of occupation being used in this country, but Reil, in his "Rhapsodieen," published in 1803, advocates the use of work as a therapeutic agent, pp. 240 and 246). It will be remembered that Reil was at Halle, was born in 1759 and died in 1813. His "Rhapsodieen" has recently been made the subject of a study by Dr. William A. White of the Government Hospital, who has found in it many references of psychotherapeutic interest.

Dr. Russell of Bloomingdale has recently had reprinted a pamphlet which was written by Mr. Thomas Eddy, manager of Bloomingdale Hospital in 1815, giving his views as to the establishment of a new Bloomingdale, which was at that time in close position to the New York Hospital. In this he makes several recommendations that means of employment be provided for the use of patients; he evidently recognized its therapeutic efficacy.

In "The Story of the Bethlehem Hospital," E. G. O'Donoghue writes (page 307):

"As early as 1822 Lord Robert Seymour had urged with great truth and force that some form of employment was one of the best medicines for certain forms of mental malady, where it is necessary to divert painful thoughts or restart the machinery of a lethargic mind. He suggested that the making of mats, paper bags, and felt slippers might be safely entrusted to the patients, but it was not till the beginning of 1844 that the workshops were completed. In them from this date for another ten or fifteen years painting, glazing, engineering, and other trades were followed by male patients under the superintendence of attendants skilled in the various handicrafts."

For the period between 1815 and 1852 the patients admitted to this hospital were mostly of an artisan class.

In the report of the McLean Hospital for 1822, Dr. Wyman, the superintendent, writes that "the amusements provided in the establishment for lunatics, as draughts, chess, back-gammon, ninepins, swinging, sawing wood, gardening, reading, writing, music, etc., divert the attention from unpleasant subjects of thought and afford exercises both of body and mind [and] have a powerful effect in tranquilizing the mind, breaking up wrong associations of ideas, and inducing correct habits of thinking as well as acting."

At the same hospital another superintendent, Dr. Bell, in his report for 1839, says: "The experiment of mechanical labour was here first introduced, and the safety, expediency, and immense utility of putting tools into the hands of the patients entirely and satisfactorily decided." There has been a carpenter shop for patients in this institution since 1834.

In 1837 the Hartford Retreat published a periodical in charge of patients, which was called the *Retreat Gazette*. This is believed to be the first of these hospital papers of which so many have appeared from time to time. A later one, which attracted a great deal of attention, was *The Opal*, published at the State Lunatic Asylum at Utica, N. Y., the first issue of which, I believe, appeared in 1850.

About this period, the first half of the eighteenth century, it is difficult to find references excepting in hospital reports, which, as you may imagine, are very difficult to locate, but there are occasional references in books, for example, that of Dr. Galt of Williamsburg, which was published in 1846. Dr. Galt makes quite a strong plea, saying:

"If there is any secret in the management of the insane, it is this: respect them, and they will respect themselves; treat them as reasonable beings, and they will take every possible pains to show you that they are such; give them your confidence, and they will rightly appreciate it, and

*Read at the Consolation House Conference, Clifton Springs, N. Y., March 15-17, 1917.

rarely abuse it. Place a man in a solitary, and he will most certainly tear his clothing, besmear himself or his apartment. *Give him society and employment*, and his self-respect will prevent his resorting to so degrading practices, and his mental and physical excitability will be otherwise expended. [This is probably a quotation from Dr. Samuel B. Woodward, superintendent of the Worcester Hospital.]

"No class of patients is so happy as the laborers; no other convalescents recover so rapidly and favorably; many of these would be completely miserable without labor, and their recovery hazarded. The patient enters by it into accustomed channels of thought and action, and the mind performs rationally at labor, if insane everywhere else. . . . We think highly of employment to procure rest, give strength, promote appetite, and facilitate recovery. When our patients begin to mend they desire employment. Common amusements of hospitals are useful, and far better than nothing, but will not compare with labor as a means of restoration. It is true that 'all work and no play makes Jack a dull boy.' It is no less true that all play and no work becomes insipid after a while, and does not give that healthy impulse to the mind which the idea of utility in labor is sure to impart. [Illustrative case.] Dr. Earle says: "In no institution for the insane has manual labor been more extensively introduced as a part of the moral treatment, and in no one has its utility been more satisfactorily demonstrated.'"

In the *Journal of Insanity*, however, the first issue of which was published in July, 1844, we find quite a number of interesting references. Some of those are to the work being done abroad, but the great majority are those which refer to occupation in this country. The Pennsylvania Hospital, for example, had a special workshop, as also had the McLean Asylum. Utica had a whittling shop.

It would be extremely interesting to go over these in detail, but we lack the time. I hope that later on I may be able to make a formal article out of some of these references. At present I shall simply refer briefly to a few of what seem to me the most important of these, not attempting to keep a chronological order. Quite a number of these references are to the work being carried on abroad and at Bethlehem.

In the late forties a writer on "Lunatic Asylums of England" states of Bethlehem that "from possessing no amusements, the patients now have cards, skittles, etc.; and from there having been little or no opportunity of employment the patients of both sexes are provided with materials for occupation; some are placed in the Garden; others in the Laundry, in Shops or Needle Rooms; a Loom was erected; Tailors, Shoemakers, Carpenters, and Papier-mache Shops have been established:—the patients are now urged, by small gratuities, to employ themselves; and a considerable proportion, fluctuating from time to time but amounting sometimes to 150 of each sex (ordinarily three-quarters of the patients), are employed in the asylum. And it is stated that the system of employment diminishes the necessity of restraint." It would appear from this that occupation had not been carried on at Bethlehem uninterruptedly since 1822, as we might infer from what the Rev. Mr. O'Donoghue has said.

Other references about the same time are to educational methods applied to the cretins of Switzerland, to occupation at the Royal Edinborough Asylum, and later Dr. Pliny Earle, at one time physician to the Bloomingdale Asylum, wrote an account of a visit abroad which was afterward published in book form under the title of "Institutions for the Insane in Prussia, Austria, and Germany," in which he goes into considerable detail regarding the care and treatment of patients. In his account he notes the various forms of occupation which have been used, and one gets the impression that during this time, both at home and abroad, the viewpoint of psychiatrists toward occupation was very similar to that which is held by this society, namely, that occupation in the hospitals should be used as a therapeutic measure and not as a means of gain.

In Volume X of the *Journal of Insanity* will be found an extremely interesting article, "On the Construction and Organization of Establishments for the Insane," translated from the French of Henri Falret. In discussing the construction of the hospital and the number of rooms, etc., which it should have, he takes up the question of workshops and says that "for the work of women and certain occupations of men the ordinary rooms can serve as shops, but it is necessary to have special places appropriated for the different kinds of trades, such as the shops for joiners, carpenters, shoemakers, locksmiths, weavers, etc."

In the same paper he devotes considerable space to the discussion of occupations and amusements for the insane, together with occupation for women—music, theatricals, schools, and reunions.

He gives several interesting references to other writers, and begins the part on occupation with:

"Since Pinel has demonstrated the happy effects of occupation in asylums, all physicians concur in the opinion that it is one of the most important employments in the treatment of the insane and in the organization of the establishments destined for their reception. Is it not the best and most effectual way of regulating their life, of fixing their attention and diverting them, of giving their faculties a positive and well-determined direction; in one word, of regulating their physical and moral actions?"

Besides this reference to Pinel, he refers to Isaac, Reil, Esquirol, Guislain, Rush, Nostiz, Frank, Roller, and Horn.

Dr. Yellowlees, in the third report of Glamor-

gan County Lunatic Asylum for the year 1867, says:

"Nothing is so conducive to health, both of body and mind, as suitable occupation; and nothing tends more to promote contentment and recovery. Great pains are therefore taken to find employment of some kind for all who are capable of it.

"The ordinary domestic work of the wards, of course, furnishes occupation for a large number on both sides of the house. The women are also employed in sewing and knitting, or in the laundry and kitchen. The men work in the garden and fields, or with the tradesmen, as tailors, masons, and blacksmiths. Their only remuneration is luncheon in the forenoon, and an extra allowance of snuff, tea, or tobacco. The numbers employed are very large, averaging nearly three-fourths of the entire number of patients. The economic value of their work is therefore great, while the gain to themselves in health and happiness is greater far.

"Amusements are much less valuable as a means of treatment than occupation, but they are very necessary to relieve the monotony and routine of asylum life. All kinds of games are therefore encouraged and the weekly ball continues to be enjoyed as much as ever."

Dr. Kirkbride, one of the leading advocates of work as a therapeutic agent, in his articles on construction, management, etc., of hospitals for the insane, and in his book, which was amplified from the articles, has dwelt in considerable detail on the subject. In his report of the work of the Pennsylvania Hospital for 1865, Dr. Kirkbride says:

"It is really important that ample provision should be made, in connection with every hospital for the insane, for the mechanical employment of those patients who are likely to be interested in such pursuits, and whose mental and physical condition makes it desirable that they should have such forms of occupation. Much discretion, however, is always necessary in directing labor for the insane, and most, perhaps, when mechanical employments are engaged in. The medical officers alone can properly prescribe it, and they should always carefully observe its effects on the patients, and the mode in which they perform the work assigned them. All efforts to make the labor of the insane profitable to an institution are liable to render it a disadvantage, instead of a benefit, to the patients. If entrusted to ordinary persons, and with the understanding that the more profitable pecuniarily the work of the patients is made, the better their employers will be pleased, it is almost certain that not a few will be required to do more than is proper, and that uncomplaining persons will often suffer from attempting what is really beyond their physical capacity. This applies particularly to cases somewhat acute in their character, in which there is often a morbid activity and energy; but it is also true of the chronic and demented, the very classes which are relied on to reduce the cost of taking care of the afflicted, when it is proposed to prepare separate institutions for the insane who are supposed to be incurable."

Again, in his report for 1860, he writes:

"Moderate, wisely regulated labor is really serviceable to many of the insane, but hard work, so carried on as to be profitable to any institution, is very rarely of benefit to the patients, while often it is injurious to an unsuspected extent to a class whom excitement of disease stimulates to extraordinary exertion. . . . The labor problem in regard to the insane is probably best settled by the conclusion, that it is hardly possible to exaggerate the importance of some kind for every class, but also that harm quite as easily as good, may follow employment in unwise forms, and that a practical knowledge of the whole subject in regard to kind, amount, and the physical and mental conditions of those on whom its effects are to be tried, is quite indispensable to secure the best results from its use."

It should be remembered that the term applied to this form of therapy was in those days "moral treatment" or "labor." The term "occupation" came in somewhat later.

A very striking sentence may be found in Vol. XXIV of the *American Journal of Insanity*, page 117, in an address entitled "The Psychopathic Hospital of the Future," which was delivered by Dr. Pliny Earle at the laying of the cornerstone of the Middletown Hospital. This is extremely interesting in view of the very modern ideas advanced by Dr. Earle in 1868 in regard to hospital administration. In regard to occupation therapy, he expresses the belief that patients should be forced to work, and says: "The physician, *rational*—or at least, *supposed* to be—approves, commends, and recommends, but permits the patient, known to be *irrational*, to decide and, in effect, to prescribe or to withhold."

It has interested me to note that between the forties and sixties the majority of psychiatrists advocated work as a therapeutic measure, and at all times have we found certain men who have been advocates of occupational therapy. Dr. Kirkbride and Dr. Ray are two of the most conspicuous who come to mind at the present time. It would appear, however, that for a time, probably between 1860 and 1890, hospital superintendents and physicians rather lost sight of the therapeutic application of work and regarded it more from an economic point of view. Possibly the fact that readjustment was necessary after the Civil War made this point of view seem the most important one. In the nineties we apparently find men beginning to take greater interest in the subject, and after the beginning of this century we find that persons were beginning to attack the subject in a more scientific way than had formerly been done. I think that Miss Tracy had a great deal to do with this, and the publication of her book certainly gave the subject quite a strong stimulus.

I fear that I get somewhat enthusiastic in quoting these references, which are so very interesting to me. It will take a considerable amount of labor before they can be arranged chronologically and properly under certain headings. I do not wish to inflict too much upon you at the present time.

REMUNERATIVE OCCUPATIONS FOR THE HANDICAPPED

The More Useful the Work the Better the Therapeutic Effect—Products Best Marketed by Organized Effort—Worker Should Be Kept Up to High Standard

By HERBERT J. HALL, M. D., Marblehead, Mass.

WE hear more and more about the value of work as a remedy. It seems clearer now than ever before that idleness, long continued, is a menace not only to the proper functioning of the body, but also to the morals and spirit of the individual. Nearly every sanatorium or asylum that pretends to be progressive has its organized occupational department. Doctors and nurses are strong in their praise of the new remedy—for the remedy is new in its systematic and intelligent application. The occupations that are employed therapeutically range all the way from work in the service of the institution to a virtual play in the construction of rather useless articles of the co-called arts and crafts order.

After some thirteen years' experience with therapeutic occupations, it is very plain to me that, short of actual drudgery, the more useful the work, the better its therapeutic effect; and conversely, the more trivial and valueless the product of the work, the less effective will it be in the therapeutic sense.

It is hardly necessary to insist that there are grave economic reasons why we should "make every shot tell" when we are dealing with people who are public charges in charitable institutions and who may in a considerable degree contribute to their own support. It should be hardly less evident that men and women who are being restored to independence after accident or injury should be working along lines that lead directly back to the various productive trades. My own experience has been largely with the well-to-do who are seeking health and efficiency through the retraining and reorganizing of their faculties by means of specialized occupations. I find that here also useful and commercially valuable work has a decided moral and developmental value.

Those who are seriously interested in economic and therapeutic occupations for the handicapped can hardly do better than consider the vocational activities of the Military Hospitals Commissions in Canada and abroad.[1] These commissions are grappling man fashion with the industrial problem of the convalescent and crippled soldiers. In Canada, as well as in England, France, and Italy, they are not waiting for the soldiers to become chronic idlers. They recognize the fact that even the idleness of prolonged convalescence is a danger to the individual and to the state.

Fig. 1. Interior of the workshop, Devereux Mansion, Marblehead, Mass.

Prof. Jules Amar, Directeur, Laboratoire des Recherches sur le Travail Professionel, Paris, says in a paper called "Organization of the Training of the Disabled,"[2] "A too prolonged stay in hospitals and convalescent homes is the true cause of idleness. The reeducation of joints and muscles, followed by exercises in his trade, so harmonized as to assure for the individual the maximum of his output, must begin in the convalescent home before medical treatment is finished. . . . How many are capable of being reeducated and how many are doomed to be assisted? By consulting former experience and on the faith of the soundest proof, 80 percent of the mained are capable of vocational reeducation.

[1] I am indebted to Mr. T. B. Kidner of Ottawa for what knowledge I have of the Canadian industrial situation.

[2] Special Bulletin of the Military Hospitals Commission, Canada, April, 1916.

They may be divided as follows: 45 percent totally, that is to say that they may succeed in earning normal salaries, on condition that 10 percent, or thereabouts, specialize. The direction in which they specialize should always be, as has already

Fig. 2. Patient at the loom, Devereux Mansion.

been said, within the limits of their former trade. Twenty percent may not arrive at full working capacity, as their reeducation is partial, but still give an appreciable output. The directing of men of this class toward their former profession involves a series of scientific observations for the purpose of providing employers with exact knowledge as to the value of each man's output and capacity. Finally, 15 percent will have to practice subordinate trades (*petits metiers*), in which production is small, their reeducation being entirely fragmentary. Whereas 65 percent, representing the first two classes, may be put into ordinary workshops or establish themselves as workmen in their own rooms, the last 15 percent must work in workshops organized for the purpose, where in any case they can earn a bare livelihood. The majority of the 20 percent not capable of being reeducated are dependent upon relief institutions for work; nevertheless, a very small minority attain sufficient productivity to be useful in the workshops."

Surely here is a brave and practical way of looking at the problem of occupations for the handicapped. Every man who can be made fit must be reinstated in his old trade. Those who cannot compete with able-bodied labor may nevertheless resume their own trades under special and favored conditions. Those who cannot go back to their original work may find remunerative employment in their own homes or in especially devised handicapped workshops.

Why is this not a sensible model for all handicapped industries in our own country? If the little shops, the hospital industries, can be made self-supporting, well and good; if not, they have served a larger purpose. There are a few experimental shops already in connection with our general hospitals. Until recently the Massachusetts General Hospital in Boston had such a shop, and it accomplished excellent results. For two years this cement workshop was entirely self-supporting through the sale of its products. The report shows that during the past year no less than ten men who had been given up as industrially unfit by the social service department were retained at work until they found remunerative positions in the world outside. The shop has been temporarily discontinued because it had begun to run behind financially and there were no funds available to bridge over and to study out new employments.[1] The Tide-Over League in Boston, under the direction of Miss Mary I. Husted, an expert hand weaver, is providing temporary or part-time

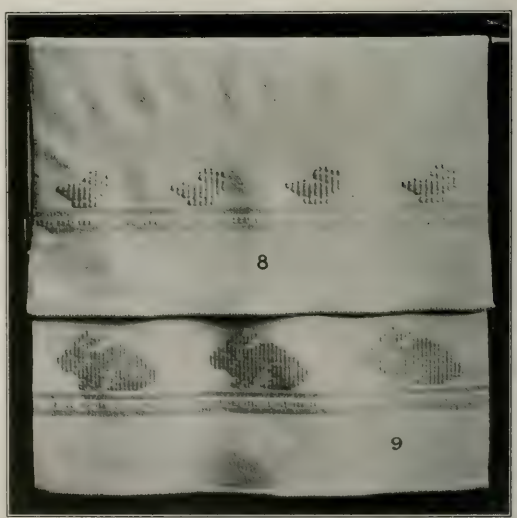

Fig. 3. Two baby blankets made at Devereux Mansion workshops.

occupations of a remunerative nature to a considerable number of handicapped women. In Cin-

[1]This shop paid its workers an average of a dollar a day for their services in making cement flower pots and garden furniture. Those employed were all out-patients of the hospital, living in their own homes and coming to the hospital daily as they would for ordinary medical or surgical treatment.

cinnati, Ohio, there is an experimental shop in connection with the new General Hospital. In St. Louis there has recently been established a weaving shop by the Junior League of that city, for convalescents from the Barnes Hospital. The well-known Sharon-ware workshop in New York City keeps profitably employed a considerable number of cardiac invalids who would otherwise be hospital "repeaters" or actual dependents. There are a good many enthusiastic and effective individual workers in the field of rehabilitation, notably Mr. Barton of Clifton Springs, Miss Susan Tracy, Mrs. Eleanor Slagle, of Boston, and Dr. Mary Lawson Neff, who go about among state institutions organizing industries.

Such work as this is so far tentative and experimental, but it is very hopeful and suggestive. With a little more support and a little better business handling, the convalescent shops would become a very valuable accessory to hospital treatment, and they might become so nearly self-supporting as to add that distinct advantage to their therapeutic functions.

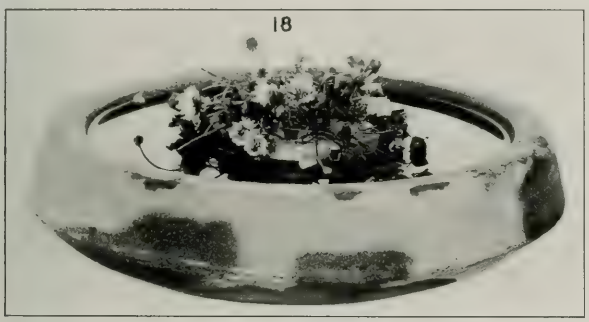

Fig. 4. A specimen of the Devereux Mansion cement work a bird bath made of cement from a plaster-of-paris mold. Reproduced from "Handicrafts for the Handicapped," by Dr. Hall and Miss Buck, published by Moffat, Yard & Co., New York.

It is significant that some of the large employers of labor are awake to the fact that it does not pay to discharge a man the minute he shows signs of failing in the job he happens to have undertaken. I know of one large firm that gives a man three opportunities to make good, changing him from department to department before he is finally given up as hopeless. In this way they not infrequently discover that the physically weak who are trying to do unsuitable work may prove invaluable in some situation requiring more head work. The reverse is also sometimes true —a big, burly chap is tending a complicated machine indifferently well, wasting the strength which would be of full service in the moving of heavy merchandise.

The legal demands of employers' liability in case of accident or disability may bring about with unexpected force and speed some system of special occupations; for it is becoming more evident daily that the disabled workman tends to be idle an unnecessarily long time when he is being supported or partly supported in idleness. The increasing burden of this kind of taxation may force employers to devise some adequate means of retraining the sick and injured.

I do not pretend to know how the reform will be brought about or what practical shape it will take. I do know, and so do a good many other observers, that something will have to be done sooner or later, whether we look upon the matter as a measure of humane and medical necessity or as a purely economic demand.

Dr. Hornsby has asked me to state what prospect I think there is of disposing of the products of handicapped labor—if the worker trained in hand-weaving, for instance, can hope to be self-supporting after leaving the convalescent shop—when he can no longer depend upon the organization to dispose of his products. I should say in answer to this that such a worker ought never to lose his connection with the organization. He ought always to be watched; he should be constantly supplied with good materials and good designs. He should be kept up to a high standard, and his products could then be readily disposed of through the selling agency of the shops or through his own initiative.

My own work has always been and still is experimental, but so far we have sold or could have sold at good prices practically every article made by my apprentices. This could not have happened without skilled supervision, and skilled supervision should always be available for handicapped workers. In this way the physical or psychic handicap is to a great extent removed.

Frankly, I do not know whether a considerable number of handicapped workers can be made self-supporting in their own homes. Most of my patients are well-to-do and do not need to be supported in this way. Each year for the past thirteen years we have been able to train and equip at least one skilled and especially trained apprentice. Many of these people were handicapped rather severely when they entered the shops. They are now, with one or two exceptions, earning their living, not as producers, but as teachers and supervisors in hospital, sanatorium, or asylum shops.

Teachers like these, thoroughly trained in use-

ful crafts such as hand weaving, offer the best hope of successful industry for the handicapped after they leave the institutions.

I believe that hand weaving offers a very large, a practically inexhaustible field, for a considerable number of women or men, for that matter, who cannot hope to enter the trades or professions.

A good loom costs about fifty dollars—materials may be comparatively inexpensive. The work may be left at any moment and taken up at convenience. Unaided, the results would be pathetic; skillfully directed, the possibilities are excellent. I quote now from "The Work of Our Hands:"[1]

"By developing special patterns and individual effects designed by clever craftsmen, we provide a business capable of supporting a considerable number of handicapped workers. At Marblehead is made a small woolen blanket for babies. The material for one of these blankets costs about sixty cents. If the workers were to weave a similar length and width of plain woolen cloth, they could not sell it for a dollar, but because there is an attractive design and because the piece is finished well, these specialized blankets sell for five or six dollars. It takes about a day and a half to make such a blanket. The factories could not produce the same thing—hand weaving is distinctive and better—but the hospital workshop can take the time, and such a course may mean at least a partial self-support where help is greatly needed."[2]

I do not wish to discourage further attempts along this line, for a very useful purpose may be served, especially if, as in the Marblehead shops, there is careful specialization; but the so-called arts and crafts taught in a few lessons to eager young women can hardly be expected to succeed in any commercial sense. The products must be justified and must command a normal market.[3] If they are to succeed in the best sense, the shops must represent a kind of modified factory system. Then they will serve a two-fold purpose. They will help to restore strength, skill, and confidence to the handicapped and they will, in a small way at least, and for a limited number, earn a real livelihood.

I cannot emphasize too strongly the need of trained and able-bodied workers as a nucleus for every shop of this kind, whether the shops are used for therapeutic purposes only, or with the idea of providing a livelihood for the handicapped, or if they are used as intermediaries between idleness and the assumption of the regular trades.

It has been suggested that some kind of copyright or protection might be secured for the products of handicapped labor. I doubt if such protection would be wise. There might very well be a copyrighted trademark which would help to identify the products. Such a trademark would be legitimate and probably helpful, but the products of handicapped labor must be so specialized and so perfected that they stand on their own feet in the open market; otherwise we may as well give up the idea of such remunerative occupations.

That such a desirable end may be brought about sometime, is, I think, made clear by the partial success of a few experimental workshops, which would have been more effective by a little better backing and by a more businesslike management.

[1]Hall, Herbert J., and Buck, Mertice M. C.: "The Work of Our Hands," Moffat, Yard & Co., New York, 1915.

[2]At Marblehead the shop is also the salesroom. The place is well known, and people come from considerable distances to buy the products. There is no reason why the handiwork of outside craftsmen could not be sold through such an agency.

[3]The fabrics woven at the Light House, an industrial school for the blind in New York city, are now of such high quality that they are sold through the firm of Lord & Taylor.

The Beneficial Results of Prenatal Work

The Instructive District Nursing Association of Boston now cares for over 2,000 prenatal cases annually. This amounts to one-tenth of all the births in Boston. The aims are: (1) by making proper medical examination, pelvic measurements, etc., of pregnant women before confinement (when possible, some months before), to decide whether normal delivery is possible or likely, and to give such medical advice as may be indicated for the comfort and safety of the mothers, and in particular when hospital care and operation are necessary; (2) by visits from a trained visiting nurse and reports to the physician, during the course of pregnancy, to instruct the mother and father in the hygiene of pregnancy, and to make the best possible preparation of the home for the sake of the coming child; (3) by expert medical care at confinement, to minimize the risk of delivery to mother and child, and (4) by frequent visits from the nurse during the two weeks or so following confinement, to provide needed bedside care to the mother and give the baby the best start possible. The results show a reduction of the infantile death rates for 1914 and 1915 to one-half or one-third those for the same period among babies in the same wards who had not received prenatal care, and a proportion of still-births only half that among the general population. As only a small proportion of the infants received any other organized nursing or medical care, Michael M. Davis, who describes the work of the association in a recent number of the *Boston Medical and Surgical Journal*, thinks it fair to attribute the reduction in death rate to the prenatal work.

Conciseness and decision are, above all things, necessary with the sick. Let your thought expressed to them be concisely and decidedly expressed. What doubt and hesitation there may be in your own mind must never be communicated to theirs, not even (I would rather say especially not) in little things. Let your doubt be to yourself, your decision to them. People who think outside their heads, the whole process of whose thought appears, like Homer's, in the act of secretion, who tell everything that led them towards this conclusion and away from that, ought never to be with the sick.—Florence Nightingale, "Notes on Nursing."

OCCUPATION AND DIVERSION FOR TUBERCULOUS PATIENTS

Therapeutic Value of Medically Supervised Occupation—Patient Better Fitted for Discharge if Capacity for Work Has Been Tested—Diversion for Bed Patients

By ARTHUR T. LAIRD, M. D., Superintendent, Nopeming Sanatorium, Nopeming, Minn.

AN editorial in THE MODERN HOSPITAL, November, 1914, called attention to a need in tuberculosis hospitals for "entertainment, diversion, and occupation" which was not being met in some institutions. In others considerable attention had been given to the matter, but few superintendents realized at the time the necessity for emphasizing this phase of the work.

In practically all county and municipal institutions there are two principal classes of patients to be considered, those with active symptoms, confined to bed, and those with arrested or quiescent disease, who are able to walk about and are allowed considerable exercise. The provision of suitable occupation for both classes is of the utmost importance from the therapeutic point of view, and in the case of the latter is of some economic importance. At Nopeming about one-half of the present enrollment, 155, consists of bed patients, and this is practically a constant proportion.

While our industrial department is not yet as well organized as we hope it will be, we have made a beginning and our experience may be of some help to others. The question of occupation for ambulant patients will be considered first.

OCCUPATION FOR AMBULANT PATIENTS WITH QUIESCENT DISEASE

The value of graduated exercise under careful supervision in the treatment of tuberculosis was demonstrated to the medical profession some years ago by Marcus Paterson at Frimley, England.[1] In many of his cases, practically normal health and restored earning capacity were secured. More recently Herbert J. Hall and M. M. C. Buck, in their book, "The Work of Our Hands, A Study of Occupations for Invalids,"[2] have treated the whole subject of work for invalids in a most interesting and suggestive way, besides discussing specifically the industrial problem of the tuberculous. The results achieved by the allies and the central powers in devising occupations for handicapped soldiers have also emphasized the folly of neglecting such economic assets both from the patients' point of view and from that of the country.

While at Saranac Lake, I was much impressed with the success obtained by Mrs. C. R. Armstrong, at that time superintendent of the Adirondack Cottage Sanatorium, Trudeau, N. Y., in providing employment under healthful conditions for patients discharged from that institution and from other sanatoriums. Special outdoor sleeping quarters were built for these employees, and medical attention was secured for them when needed. A large proportion of the domestic workers had had tuberculosis, while a considerable number of the medical and nursing employees were also ex-patients. The latter did their work under the immediate supervision of Dr. Lawrason Brown.

The plan for employing tuberculous persons at Nopeming is, however, somewhat different from the one used at Trudeau or other institutions having a certain number of persons with arrested tuberculosis on the payroll. At Nopeming, all tuberculous employees are classed as patients, live in the patients' quarters, eat at patients' tables, and are under the same rules and regulations as other patients. This arrangement relieves us of the necessity of providing special quarters and regulations for tuberculous help and insures closer supervision. Most of the ambulant patients occupy tents and cottage shacks and do not, therefore, take space needed for bed patients.

The following gradations of exercise are employed:

1. Complete rest in bed on back (complete immobilization).
1A. Permitted to turn on side.
2. Permitted to move about in bed.
2A. Permitted to go to bath-room in wheel chair.
3. Permitted to walk to bath-room.
3A. Permitted to go to the small dining-room.
4. Permitted to go to main dining-room.
4A. Permitted to go to main dining-room and sitting-room.
5. Fifteen minutes' exercise in addition to above.
5A. Thirty minutes' exercise in addition to above.
6. Forty-five minutes' exercise in addition to above.
6A. One hour's exercise in addition to above.
7. One and one-half hours' exercise in addition to above.
7A. Two hours' exercise in addition to above.
8. Three hours' exercise in addition to above.
8A. Four hours' exercise in addition to above.
9. Five hours' exercise in addition to above.
9A. Six hours' exercise in addition to above.
10. Seven hours' exercise in addition to above.
10A. Eight hours' exercise in addition to above.

Patients who have had fever or rapid pulse are not advanced oftener than once a week or more than one grade at a time. Usually the advancement should be very much slower. The same rule

[1] Trans. Internat. Cong. on Tuberc., 1908.
[2] Published by Moffat, Yard & Co.

is observed in assignment of exercise after hemorrhage or relapses.

Exercise is increased only after "consultation" and is noted on chart. Whenever exercise is increased the patient is given a signed card showing the grade and number of hours. Heads of departments must examine the exercise card before allowing patients to work.

Patients with Exercise 6 may walk one mile a day, or as far as to the station. Patients with Exercise 10A should not walk more than three

Fig. 1. Articles of woodwork made by patients at Nopeming Sanatorium.

miles a day except by special permission. Hill-climbing should be avoided as far as possible.

Since the opening of the sanatorium in May, 1912, the following positions have been held by about seventy-five different patients who have eventually reached the higher grades of exercise. Nearly all have been on the payroll. Four hours' work a day is counted as an equivalent for board, and for time in excess of that the patient is paid twenty cents an hour.

Physicians	2	Drivers	2
Clerks	4	Janitors	11
Laboratory men	3	Tray boys	12
Orderlies	4	Postmasters	3
Chauffeur	1	Bookkeepers	2
Seamstresses	2	Typewriters	4
Nursemaids	2	Librarians	3
Nurses	4	Shop foremen	4
Printer	1	Inspectors	2
Teachers	2	Storekeeper	1
Barbers	2	Shop workers	3

Many other patients have worked less than four hours a day at the same occupations in the workshops, flower gardens, or elsewhere. The total enrollment to date, including bed patients, has been 610.

The fact that any patient may, if he is assigned sufficient exercise, become at least temporarily a paid employee of the institution gives him a definite goal to be reached at the sanatorium before he undertakes work outside. If we already know that a man is able to work six hours or more a day at Nopeming without injury to himself, we feel much safer in permitting him to go home than if his capacities were entirely an unknown quantity. It is easier also to persuade a man to prolong his stay at the sanatorium if we are able to show him that his attempts to reach the higher grades of exercise have as yet been unsuccessful than if he simply knew that he felt well. There is no time limit set for the attaining of this goal. The increase in exercise may be slow or more rapid in accordance with the patient's reaction to the treatment. It is not unusual for patients to be several months in reaching No. 4. As in other places, a patient may be able to keep well at the sanatorium but be unable to succeed in working under city conditions. If our "graduate" does not succeed when he tries work elsewhere, he is readmitted as soon as we can find room for him. No limit is placed on the time a patient may hold his position or on the number of his readmissions.

Besides doing the work involved in the positions enumerated, the patients make all ordinary repairs to furniture and equipment. Painting and varnishing of furniture, floors, and walls is also done by them.

In addition, a variety of articles have been manufactured by them under the direction of

Fig. 2. Baskets and trays made by Nopeming patients. The oval trays are very easy to make. Several dozen have been made.

more or less skilled foremen and persons experienced in handicraft. The instruction thus far has been given by members of the regular staff having other duties, but we hope in the future to place specially trained people in charge of this work.

The following is a partial list of articles that have been made by convalescent patients or those with arrested disease:

Carpentry: Lawn benches, children's high chairs, music cabinet, bookcases, index board, lockers, lamp stands, screens, bird houses, sleds, bootblack stand, magazine rack, window shades, tables, picture frames.

Basketry: Serving trays, serving baskets, broom holders, vase holders, mats, raffia baskets.

Embroidery: Various crocheted and knit articles.

Weaving: Linen cloth for curtains.

Pottery: Vases, candlesticks, book holders.

Clothing and Bedding: Pajamas, nightgowns, capes, hoods, bed socks, knit caps, sheets, pillow cases, mattresses, rugs, and cushions.

Pictures: Posters for health exhibits, small passepartout pictures for patients' bureaus, framed pictures.

Miscellaneous: Paper bags, bonbon boxes (from tin cans), paper beads.

Printing: All the printing of the institution and the *Nopeming Breeze*.

Gardening: Sufficient flowers are raised to keep bouquets at every bedside during the summer.

Once a year an exhibition of handicraft is held at which prizes are given. Ex-patients are specially invited, and other friends attend. Following the exhibition at the sanatorium the best-made articles are displayed in a store window in Duluth. Many of the bed patients contribute embroidery or posters and similar articles which can be made without much expenditure of energy.

Fig. 3. The printing plant at Nopeming. Here all the printing of the institution is done.

Only patients with quiescent or arrested disease are permitted the higher grades of exercise, and these are carefully watched for the appearance of signs of active trouble.

Articles made for use in the sanatorium are now placed in a separate store room, from which they are obtained by special requisition. The labor and material used are noted and a value assigned to each object. The cost of each job of repairing or renewal is also calculated. This part of the work has only recently been systematized. One of the patients has charge of the clerical work. The enterprise is not yet sufficiently developed for us to be able to state definitely the cost of operating the industrial department. The usual salary paid for full-time work is $20 a month, which is somewhat less than would be paid to non-tuberculous workers. The patient, however, has medical supervision, sleeps out of doors, and has the privilege of keeping rest hour.

The expense of painting and ordinary repairs is less than it would be if a regular painter or carpenter were employed. Very often the patients are especially skilled men. On some manufacturing articles there is decided saving. Our paper bags are now made from old magazines and newspapers stitched on a sewing machine run by a motor, and do not cost more than $2 a thousand for 20-pound bags.

We hope some time to be able to provide steady employment for any and all tuberculous individuals in the county who are able and willing to work under healthful conditions and under medical supervision. For this purpose we shall need a large, well-lighted, and well-ventilated workshop or factory, surrounded by inexpensive cottages, where "graduates" of the institution and others can live with their families. The knowledge that many "cured" persons were at work in the neighborhood would be a source of the greatest encouragement to the bed patients and would tend to make them contented to stay in the institution.

Fig. 4. Articles of fancywork made by Nopeming patients. The cloth in the table covers was woven at the sanatorium.

The tuberculosis industrial colony, if developed along the lines of the "home hospital" in New York City, may eventually go a long way toward

securing the voluntary segregation of large numbers of open cases of tuberculosis at comparatively little expense to the community. If the patient himself is too ill to be employed, the family problem may be in a measure solved by giving employment to some well member of the family in the same shop. At Nopeming six husbands, three wives, three brothers, six sisters, three fathers, three mothers of patients have been em-

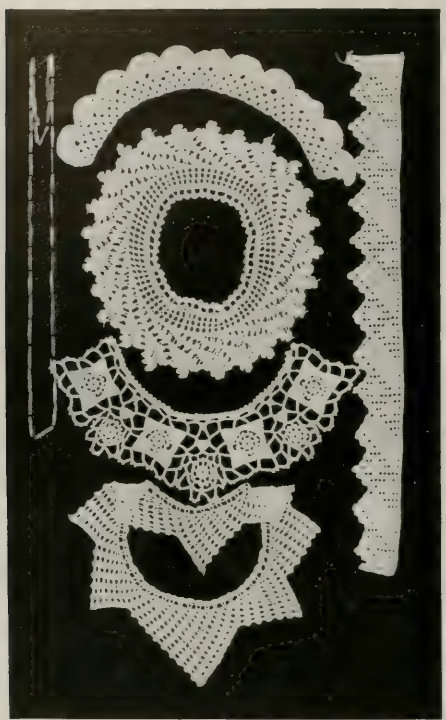

Fig. 5. Lace made by Nopeming patients. At the left is a set of the paper beads described in THE MODERN HOSPITAL, June, 1916.

ployed in various capacities. Families rather than individuals are the units to be considered.

OPPORTUNITIES FOR INSTRUCTION

Besides the children's open-air school in the children's cottage, evening classes are held for certain older patients, especially foreigners. Some of the patients with well-arrested disease have taken up correspondence courses with the idea of following a less laborious occupation than that formerly pursued.

Musical and literary entertainments, given by the patients themselves or by amateurs and professionals from town, moving pictures, games, and parties are all part of the regular program and help in the general culture of those who in some cases spend three or more of the best years of their lives with us.

The cultivation of an outdoor hobby, such as the raising of flowers or vegetables, the study of birds, trees, ferns, flowers, or the stars, is encouraged. Photography has had several devotees. Provision is also made for regular religious services.

DIVERSION AND ENTERTAINMENT FOR BED PATIENTS

Up to this point we have been discussing the problem of the ambulant patient with arrested or quiescent disease. Equally important from a therapeutic point of view is the securing of suitable diversion and entertainment for the bed patient. The proper mental attitude is an important factor in successful treatment, and psycho-

Fig. 6. A picnic on the lawn.

therapy is not without a place in the resources of the tuberculosis specialist.

Inasmuch as our institution is directed by law to give preference to advanced cases, the depressing features of their presence in the institution must be eliminated so far as possible.

This is accomplished in part by the use of many small wards, private rooms, and small porches, which permit the grouping together of congenial persons and the separation of the very ill from the more hopeful cases. There are small dining-rooms near the bed patients' rooms, and porches where they can take their meals in negligee after they are allowed a little exercise but before they are permitted to go to the main dining-room. This change from the solitary meal served on a tray is a very welcome one to most people. In connection with two of these dining-rooms are open fireplaces and easy chairs. Here a patient may sit while his bed is being made or his roommate is having visitors. Occasionally a little concert or entertainment is given in this room, or moving pictures are shown; a portable machine is used. On such occasions, beds are rolled into the adjoining wide corridors, so that even those with no exercise may share the fun.

Now that the Annex and Tower buildings are completed, it is possible to take a patient, either in bed or in a wheel chair, from the main building across the arcade roof, through the Trudeau infirmary, out on the Annex roof garden, through the sun-treatment parlor to the observation station on the Tower, a distance in all about five hundred feet. Here the day-time view in almost every direction is unobstructed and alluring, and at night one may look up at the stars above, or below, in the west, may see the bright, sparkling lights of the city of Cloquet. These same roof promenades and porches afford many opportunities for securing change of scene and diversion for bed patients. On the spacious clearing in front of the main building[1] are croquet grounds for patients and a tennis court for the use of employees. The contests are interesting to watch. Old baseball "fans" among the bed patients are delighted when the janitors and orderlies knock up flies or play "three o'cat." No roads cross this clearing, which is reserved for entertainment. Adjoining it are the playgrounds of the children's cottage, and the bed patients may watch their play in summer and their skiing and coasting in winter. On special occasions, picnic dinners and suppers are served to patients on these grounds and are a source of enjoyment not only to those participating but to the watchers on the porches, especially when there is music by a Duluth band or orchestra. The electrically illuminated outdoor Christmas tree, kept lighted each night for a week, has been the occasion of appreciative comment by many bed patients.

In the center of the foreground is the tall white pole presented by the Red, White and Blue Society, from which a handsome flag waves on all gala days. An Italian patient is the proud custodian. Drills are executed by the children on suitable occasions, such as Memorial Day or the Fourth of July.

On all holidays and whenever special entertainments are given in the main sitting-room, as many of the bed patients as can safely be permitted the exertion are sent in wheel chairs down the elevator to the party or show. They do not have to walk a step, and are watched in order that they may not become overtired. In the meantime they store up happy memories and subjects for pleasant thought and conversation.

Various other expedients to ward off homesickness are employed. A family spirit is cultivated and there are absolutely no class distinctions. No one outside of the office knows who are free and who are pay patients.

Reading is of course a great diversion, and current magazines and papers are regularly distributed by the librarian to all bed patients who can enjoy them. Books from the library are sent to the rooms, and literature in various languages is provided. Puzzles and small framed pictures for the bureaus are distributed in the same way as books. The library now contains about seven hundred volumes, besides over two hundred records for the portable victrolas, which are also loaned under certain restrictions.

Sewing and fancywork are allowed many of the women patients. For men simple diversions are more difficult to find. Solving of puzzles, whittling, making letters out of bright-colored paper, the practice of telegraphy, especially by old railroad men, are a few of the expedients tried. The suggestions made in Miss Tracy's book, "Studies on Invalid Occupation,"[1] have helped some patients. Many sets of paper beads[2] have been made in the sanatorium. For those to whom none of these occupations appeal, there is still left conversation with a congenial porchmate, the most satisfactory of all recreations, and, for those not socially inclined or needing the rest, there is daydreaming in the warm sunshine, the good taste of the crisp, pure air, and the refreshment that comes from a little extra sleep, which, curiously enough, seldom interferes with the night's rest.

Every morning at eleven o'clock the train brings numerous visitors from town, who remain until twelve-thirty. From one-thirty to three, "rest hour" is observed and no visitors are permitted (even to ambulant patients regularly employed). The nearness to the home folks and their frequent cheering visits make many contented to remain who would otherwise always be longing for the home faces.

As there is a children's cottage and an infant department, it is not an uncommon occurrence that two or three members of an infected family are living at the institution at the same time. Occasionally, if the well parent is employed, the family is not divided. Besides the home friends, clergymen visit patients who need or request their services.

The provision of entertainment and diversion should of course not be carried to the point at which the patient is fatigued, and for many acutely or severely ill patients all that should be done is to furnish them sympathetic medical care and nursing. Every opportunity for encouragement and helpfulness should be utilized. Rest and a calm spirit are often the medicines needed to the exclusion of more active measures. Entertainment, instruction, and diversion, while most

[1]See illustration in THE MODERN HOSPITAL, March, 1917.

[1]Published by Whitcomb & Barrows, Boston.
[2]Described in the June, 1916, number of THE MODERN HOSPITAL, p. 453.

necessary, must be under careful supervision and efficient control. The value of rest in treatment is too well proved to be ignored, and exercise should be most carefully administered.

The transfer from one grade of exercise to another should be made only after a careful study of the patient's condition. In some cases it will be two years or more before the higher grades are reached, and some patients must be content to remain in the lower grades.

The dangers of too early assignment of work and too rapid increase in the amount done as well as the beneficial effects of prolonged rest have been repeatedly pointed out by Dr. Joseph H. Pratt,[1] and any superintendent planning industrial work should read very thoughtfully Dr. Pratt's articles on rest in tuberculosis.

I have enumerated a few of the occupations and diversions provided in one Minnesota county sanatorium. Most of them are neither new nor original, and much of the same sort of work is done elsewhere. A definite effort has, however, been made to provide employment under supervision for the discharged sanatorium patient and others with arrested disease.

[1]Jour. Outdoor Life. September, 1912; March, 1917.

THE BENEFICIAL EFFECTS OF WORK THERAPY FOR THE INSANE

Some Common Mistakes in Applying Occupational Therapy—Work Chosen Must Be Adapted to the Individual—Work Must Be Directed by Trained Teachers—Patient Must Not Be Allowed to Become a Drudge

By FRED P. CLARK, M. D., Medical Superintendent State Hospital, Stockton, Cal.

THE therapy of work, if properly classified and carried out, is one of the most important factors we have at our command in aiding those mentally affected to regain their normal condition.

The most common mistake made by those who have not given special study to this form of treatment is that of assigning the patient to some occupation for which he or she is entirely unsuited. Consequently we find the patient not benefited by mental and physical employment, but uninterested in his work and dissatisfied, often becoming irritable on account of an occupation that is unpleasant to him or because of his inability to perform the work to his own satisfaction. When this condition is present his mental state is retarded instead of being benefited.

Again, the mistake is made of trying to carry on this work with nurses who have had no special training in work therapy and who are occupied with their regular daily duties while endeavoring to teach basket-weaving, embroidery, etc., to those engaged in this occupation. This method of applying occupational therapy is wrong. The work must be under the direction of teachers who have been trained along the proper lines and whose time and minds are in no other way occupied, so that they can give their undivided attention to their duties. The teachers should be intelligent, observant and tactful in order that they may command the respect of their pupils and be able to observe when the patients begin to tire of any special line of work.

Before the patient is assigned to one of the departments of work therapy, his or her history should be carefully reviewed. It should be determined whether overwork, with its attending lack of diversion and amusement, or underwork, with its round of pleasures and dissipation, has been a factor in the causation of the mental breakdown. The importance of this should be borne in mind if we expect to carry out the work successfully.

For example, in looking over the history of a woman patient whose condition has improved to the extent that it is thought advisable to occupy her time with some form of employment, we find that she is the mother of several small children and that her husband's financial condition is such that she has been compelled to work from early morn until late at night without relaxation or any form of amusement. We would not expect her mental and physical condition to be improved by placing her in the laundry or sewing room, where she would be required to perform the same line of work that perhaps had been responsible to some degree in bringing about her mental breakdown. Such a patient requires amusement and pleasant occupation to divert her; she should be assigned to the first class in work therapy, as it is designated at this hospital.

In this class, which is under the direction of a teacher especially trained for this work, the patients are taken each morning for a walk of three quarters of an hour about the hospital grounds. After the walk they go to the gymnasium, where they don their uniforms, which in itself is quite an event to some. The morning work consists of marches, drills, dumb-bell exercises, singing popular songs, and instruction in folk and modern dances. The afternoon hours are occupied in learning some form of fancywork with which the

patient has hitherto been unfamiliar, such as basket-weaving, embroidery, rug-making, and, in fact, taking up any line of work of this nature which is new or interesting to them. This form of mental occupation opens up an entirely new field of thought and diversion to the unfortunate woman whose life has been spent in worry and drudgery, and encourages her with the thought of a more pleasant and cheerful life on her return to her home, due to the fact that she will be able to occupy her mind and time in a manner hitherto unknown to her.

Should the patient be one who has led a life of pleasure, exactly the opposite form of occupation should be employed. This patient's time should be differently occupied. The morning hours at least should be spent in the open, where each one can have his own flower or vegetable garden. Here it would be necessary for the patients to indulge in considerable muscular exertion in order that they may successfully compete with others similarly engaged. Their afternoon hours should be occupied with pottery-making, basket-weaving, rug-making, or in fact any form of occupation which would open to them an entirely different line of life from that with which they had formerly been familiar.

When the patient becomes proficient in a certain line of work and it is noticed that this work is done without special thought or interest, some new form of occupation, which of course must be agreeable to the patient, is assigned, in order that the work shall not be done automatically but shall require some thought in its performance, for it is the all-important factor that the patient must exercise some mental effort while engaged in his or her work.

Our pottery and arts and crafts department occupies a very important place in our work therapy, not alone from the benefits derived by the patients while occupied in this very pleasant and interesting line of work, but it also provides them with a means of livelihood or diversional occupation when they leave the hospital and return to their former surroundings.

Work therapy as conducted in hospitals where special attention is directed to it and the work carried out by teachers who are properly trained, not only is a very important factor in assisting the patients to regain their normal mental condition, but also acts as a preventive measure after the patients leave the hospital, since they now have some form of amusement or occupation with which they can divert their minds and amuse themselves when worn out or worried by home environments.

While speaking of the benefits of work therapy for our more recently admitted patients, one should not forget the old or chronic cases on whom the routine work of the hospital falls as helpers in the laundry, ironing and sewing rooms, wards, and kitchens. Because a man or woman is valuable help in any of these departments, he or she must not be allowed to remain there and become a hospital drudge. The work should be made as varied and interesting as possible. This can be accomplished by transferring the patients from time to time to different departments where the work is less arduous and the new surroundings and companions create for them new interests.

The French Visiting Nurses and the Sanatorium Apartments

In France the mortality from tuberculosis has remained stationary for many years, while it has greatly decreased in England and other countries of northern Europe by reason of an active antituberculosis campaign. One of the chief causes of the frequency of tuberculosis in France is alcoholism, which destroys the resisting power of the body with regard to the tuberculosis bacillus. Another cause is the insanitary and crowded condition of the dwellings of the poorer classes, especially in Paris. To combat these conditions the Association of Visiting Nurses was organized in the early part of 1914, under the presidency of the Marquise de Ganay. This organization, assisted by the government, has done good work since. Since the nurses in this work must be true "missionaries of hygiene," special courses for the education of the visiting nurses were established, that they may be able to enlighten the people on the causes, prevention and treatment of tuberculosis. So far eleven groups of visiting nurses have been established in the various districts of Paris. Through the assistance of the government the association has also been able to establish sanatorium apartments (*logements-sanatoria*) in the various districts. Here a small sanitary flat of three or four rooms is rented to a family with a tuberculous patient at the low price of 28 francs ($5.60) per month. An isolated room for the tuberculous patient prevents further infection, yet permits him to remain with his family. Dr. G. Vitour describes the work of the association in a recent number of the *Paris Revue d'hygiene.*

The Sanatorium Treatment of Industrial Patients

The results of treatment at any tuberculosis sanatorium depend entirely on the class of cases sent there, writes Dr. S. Stewart in a recent number of the London *Practitioner.* If the cases admitted are in the early stages, the result will be good, otherwise poor. At the Ochil Hills Sanatorium, which receives only industrial patients, 566 male patients were treated during the past year. Of these 40 percent were improved or greatly improved. In 18 percent of the cases the disease was arrested. In the remainder no improvement took place. Four patients died. The reason for these rather poor results will be found in the fact that most of the patients had passed the initial stage when they were admitted. Early treatment is of prime importance if good results are to be obtained. Advanced cases should be treated in separate institutions.

THE POTTERIES OF AREQUIPA SANATORIUM

An Experiment in the Reeducation of Tuberculous Girls—The Therapeutic, Economic, and Psychologic Factors in the Problem—Latent Talents Discovered in Many Patients—Number Who Have Made Good

By PHILIP KING BROWN, M. D., Medical Director, Arequipa Sanatorium, Manor, Cal.

THE problem of remunerative permanent occupation for the handicapped lies as yet in the realm of things unsolved, and it is in the hope of making some contribution to this baffling question that Arequipa Sanatorium herewith puts on record the statistics gathered from five and one-half years of experimentation and effort. If these statistics do nothing more than analyze out the various factors of the problem and sharply define the limitation of our efforts, they will not have been in vain. For most of the failures of schemes for reeducating patients in a new vocation may be traced to the failure to recognize and rightly evaluate these three factors: (1) the therapeutic, (2) the economic, (3) the psychologic. Of what avail to demonstrate the value of work therapy and to struggle for the production of a marketable article, if we are straightway discouraged when the patient abandons the job that is good for her to go back to the one that she likes? These human perversities and vagaries which block the schemes of doctors and social workers are not at all the symptoms of disease, not even of sanatoriumism, but the symptoms of human nature everywhere. The experience of Arequipa is illuminating. Let us consider one by one the three factors aforementioned:

Fig. 1. A mountain sanatorium where work therapy for the tuberculous is employed. Arequipa Sanatorium, Manor, Cal.

ON THE THERAPEUTIC SIDE

The Arequipa Sanatorium for Tuberculous Wage-Earning Girls has found in the making of pottery an occupation which is not only fascinating, but also safe and suitable. It can be done in the open air or in a screened enclosure. It can be done in wet clay to eliminate dust, and the product can be easily sterilized. Many patients have begun to improve only after the work was begun, and in no instance has a patient been forced to give up work because of ill effects. Moreover, it is noticeable that a wholesome atmosphere of happiness and hope pervades the whole sanatorium on those days when the girls are at work.

As originally planned, it was not intended to do more than this—provide an interesting occupation during the tedious convalescence from a depressing disease and possibly enough profit to contribute to the support of the patient in that period. But the unexpected development of latent talent, as well as the impossibility in many cases of returning to the old employment, led to a consideration of possible connection with the working world and possible permanent remunerative occupation in the future.

THE ECONOMIC SIDE

We must admit that only a few patients have paid for their own support, but these instances are notable and encouraging. What they have done others could do. They were among the sickest girls in the house. They had never had this type of training before, and they were drawn from every rank and walk of life, from the ignorant and unlettered as well as from the professional class. At one time there were as many as

four on the list who entirely supported themselves. One had been a laundress, another a nursemaid, the third was a governess, and the fourth a waitress. As high as $1.15 for a few hours' work has been earned within three weeks of beginning work, and $11.44 has been paid for twenty-five hours of work. It should be remembered that the Arequipa working day is a five-hour day, and the Arequipa working week is a five-day week. No one works on Saturday or Sunday.

Out of the sixty-six patients who have worked in the pottery at various times throughout the past five years, twenty-four have made good. This discovery and development of latent resources is the most that we have achieved—it is perhaps all that can be achieved. But we are not satisfied. We must enlarge the field for these resources, and create a special working world for these handicapped girls. The field is not big enough in California, nor would the conditions in the economic world be adapted to their needs. For this reason it is our purpose to enlarge the pottery, manufacture tiles on a commercial basis, and strive for a higher and more distinctive type in the ornamental pieces to give outlet for art expression. We are planning to replace all male expert help by trained girls, so that more and more of the pottery shall be the product of their labor. One ex-patient is managing the pottery, and another who had shown unusual ability and industry is being educated in a New York art school by a wealthy patron of youthful talent to fit her for a higher position in the pottery. The first had been a saleswoman and department head; the second, a girl of 17 without educational advantages, had been a dressmaker's assistant at $10 a week. Both were girls of forceful character and ambition and capacity for hard work.

Fig. 2. An outdoor studio at Arequipa.

THE PSYCHOLOGICAL SIDE

It was the noticeable presence of these qualities in the girls who tried the pottery work and stuck to it which led us to make the statistical studies which we have tabulated. This is our contribution to the psychological side of the problem. Of the twenty-four girls who made good in the pottery, twenty had made good before coming to the sanatorium. They were independent and self-supporting, and had saved enough money to pay for their sanatorium care. Four were teachers, two trained nurses, three salesgirls, two seamstresses, two stenographers, two maids, one waitress, one laundress, one foreign missionary, and two cashiers. Thirty-one patients who were dependent on charity either refused to work at all, or worked under protest, though advised to do so by doctors, social workers, and friends. Ten of these were trouble-makers at the sanatorium and were discovered to have records as delinquents. Only five had made good in any line previously. And the same findings could be recorded from our efforts to form classes in typing, French, Spanish, and botany.

From all of which we may find ample illustration of this theory of the psychological determinists: "How many things and how hard things a person will do lies in his original nature; the kind of work may change, but there is no new potential."

To those doctors who have been discouraged by the failure of reeducating schemes and have attributed it to the demoralizing effects of disease and of sanatorium life, this is an important finding. It is not pathology, it is psychology. Tuberculosis does not alter character values. New powers can be developed where power has been developed before, but "something from nothing you can't."

Fig. 3. Some of the products of Arequipa potteries.

WORK DONE IN POTTERY BY PATIENTS UP TO MARCH 17, 1917.

Name	Total earned	Number of weeks	Average wage per week
A. M.	$ 15.70	4	$ 3.92
A. M. M.	23.10	8	2.90
B. A.	32.60	15	2.15
B. A.	5.15	5	1.03
B. H.	31.57	9	2.50
B. J.	17.95	9	2.00
B. C.	4.15	5	0.83
B. H. M.*†	24.95	16	1.56
C. L.†	1.02	5	5.10
C. G.	49.65	31	1.60
C.*	342.80	40	8.57
C.	35.81	11	3.35
C. B.*†	76.70	24	3.20
C. A.	57.45	26	2.20
D. M.*	90.72	28	3.24
D. L.	15.60	7	2.22
D. G.	37.15	16	2.32
E. P. M.*†	58.00	18	3.22
F. H. D.	6.86	3	2.29
F. M.	42.00	13	3.23
G. E.*†	183.13	16	11.44
G. M.*	129.24	18	7.17
G. M.	9.15	3	3.05
G. M.	4.05	2	2.00
H.	5.24	2	2.62
H.	65.21	28	2.32
H. K.	35.45	16	2.21
H. L. S.*†	80.90	25	3.24
H.	15.85	7	2.26
H. H.	6.90	13	.51
J. J.*†	88.45	31	2.85
J.	9.38	3	3.13
K.	8.74	4	2.18
K.*	84.55	21	4.03
M.	4.26	3	1.42
McC. E.*†	99.55	30	3.31
M. H.	6.20	2	3.10
Mc. M.	19.57	7	2.78
M. S.	36.29	19	1.91
M. L.*†	191.89	46	4.17
Mac. D. L.	13.65	4	3.40
McW. M.	6.75	4	1.68
N. N.*†	107.30	40	2.68
N.	27.55	8	3.44
P. A.*†	227.27	53	4.28
P.*†	Refused compensation		
P. R.	$81.85	24	$3.38
R. B.	12.80	7	1.82
R. G.*†	28.20	11	2.56
R. V.*†	46.93	18	2.60
S. M.	4.25	4	1.06
S. A.	40.95	14	2.92
S.*†	93.71	26	3.60
S.*†	309.34	79	3.78
S. E.*†	258.83	32	8.08
S. G.	36.30	14	2.59
S.	4.95	2	2.47
S. I.	1.65	2	.82
S. P.	31.05	11	2.82
U. E.*	58.80	21	2.80
W. F. M.*†	242.43	46	5.27
W. M.	18.80	7	2.68
W. N.*†	74.25	23	3.25
Y. S. H.	8.90	6	1.48
Z. B.*†	113.14	21	5.39

*Indicates those who made good in pottery.
†Indicates those who had made good in other lines.

SUMMARY

1. Total number of patients in Sanatorium November, 1911, to March, 1917 361
2. Number of patients in pottery up to March, 1917 .. 66
3. Number of patients in pottery who made good 24
4. Number of patients in pottery who had made good in other lines before illness 24
5. Number of patients in Group 3 who had made good in other lines before illness 20
6. Number of patients (dependent on charity) unwilling to work or working under protest though advised to work by doctors, family, or social workers 31
7. Number of patients in Group 6 with records as delinquents or trouble-makers 10
8. Number of patients in Group 6 who had made good previously 5

The Wise Nut

One morning Dr. H. J. Gahagan, superintendent of the Elgin State Hospital, found on his desk this note: "Knock and it shall be opened unto you. Seek and ye shall find. A good squirrel should take better care of nuts. This nut is gone."

The note bore the signature of a well-known patient who had left unceremoniously in the night and has not been heard from since.—Institution Quarterly.

The power to forget is one of the most valuable and helpful gifts which a man possesses.—S. Weir Mitchell.

OCCUPATION AND ITS RELATION TO MENTAL HYGIENE

The Illinois Society for Mental Hygiene Finds Endless Possibilities in Occupations for the Handicapped—Work an Important Element in Restoration of Patients to Normal Condition

By ELNORA E. THOMSON, Superintendent Illinois Society for Mental Hygiene, Chicago

THE Illinois Society for Mental Hygiene began work in 1909. In the incorporation papers which were filed in the spring of 1910 we give as our objects:

"To cooperate with the public and private agencies in improving the condition of the insane; to aid in the after-care of patients discharged from the hospitals for the insane; to secure data regarding social conditions provocative of mental breakdown; to publish and circulate information which may help in avoiding mental disease, and to carry on any other proper work tending to secure and conserve the mental health of men, women, and children, and to enlist the interest and cooperation of others therein."

We who have been with the society from its beginning believe that its greatest effort should be directed toward the prevention of mental breakdown, and, in an effort to help individuals, while studying conditions, we have given special attention to social service. In doing this we very soon became impressed with the fact that many of the individuals referred to us by the different agencies, by physicians, or coming to us of their own accord, needed occupation, a fact that was emphasized by reports from physicians, neurologists, and alienists who, after examination, would send patients back to us with statements like the following:

"This patient is not a subject for commitment nor is institutional care of any kind indicated. Patient would doubtless be greatly benefited by congenial employment in a good environment."

During all the first years of the work such employment was sought for in regular industries, and a few patients were satisfactorily placed, but for the majority no place could be found; yet these people seemed to have capacity for work—and it was apparent that work was needed, from both a therapeutic and an economic standpoint, and must be furnished if we were to be of any real help.

In our effort to meet this need we concluded to attempt to secure funds to establish an occupational department. Such experiences as the following had proved to our satisfaction that such a department could be made practical:

One day in the early spring of 1913 there came a request over the telephone from another agency asking that a nurse be sent to call on an old woman who was lodging in a cheap rooming house on the North Side and who was believed by those rooming near her to be insane. At any rate, she was a disturbing element, as she moaned and groaned all night so that these people were unable to sleep. A nurse was sent out and found a tall, well-built woman, appearing to be in her late sixties, deeply melancholy and all but hopeless. Her conversation indicated that she had received a fair education and there were evidences of refined tastes. This is the story she told:

Born on a farm in Ohio, she had married when quite young and shortly after her marriage came to Chicago with her husband. When their only son was about 18, her husband died, leaving a sufficient estate to carry them through until the son was old enough to support his mother and himself. The mother and son were unusually devoted and life went well with them until the son was about 35, when it was discovered that he had tuberculosis. He was ill two years, and when he died all their small savings had been used; only a few household effects remained. The mother, broken-hearted over her loss, attempted to find a means of livelihood. Unsuccessful in Chicago, she tried in another Illinois city where she had a distant relative. This relative could not help her, and because of her deep melancholy she was committed to a state hospital for the insane. After a few weeks there she was discharged, the physicians deciding after a careful examination that she was not insane. She returned to Chicago, still looking for employment, but still unsuccessful. She was without food or friends. Her story, told in logical fashion, proved to be true. The physician who saw her at the request of our nurse suggested a few weeks as a voluntary patient in one of our state hospitals where she could have care while some plan for occupation could be worked out. This she did, and after some weeks a place as mother's helper at a small wage was found; for several months things ran along quite smoothly and then there came a very natural break. The old woman, having always kept her own house, thought she knew how, and the young woman by whom she was employed wished things done her way. A similar position not being available, the old woman was installed in a comfortable room in a boarding home for working women. She was a good needlewoman, and patterns for children's quilts were given her. She made several which sold at a good figure. Then there came into our

possession, through the interest of a friend, an unusual design for a large quilt; materials were purchased and for three months the old lady stitched away. In December, 1914, the quilt was completed, a real work of art, and sold just before Christmas for $100.

If this old woman, now 70, could be made practically self-supporting, why not others who, because of mental or physical handicap, were partially or entirely dependent upon society? Two philanthropic women felt the force of our argument, and $5,000 a year for two years was promised that we might make a beginning. We believed that there were three needs to be met in such an experiment—frequently in the same individual—and occupations would have to be considered for their therapeutic, economic, and diversional character. Our first consideration, therefore, was a teacher who had both vision and training, and we were fortunate in securing the services of Mrs. Eleanor C. Slagle, who is not only interested in the problem, but also a skilled and experienced teacher. She came to us from Phipps Clinic, Johns Hopkins, Baltimore.

Work began in the spring of 1915 in an old house at 157 East Ohio Street, where all our activities were centered. Overcrowding made it necessary in the spring of 1916 to secure another house at 144 East Ohio Street, where the offices, display room, and carpentry department were moved. This now is outgrown, and while we are seeking more commodious quarters, Hull House has given us the use of their workshops for the summer. Many problems have been met; quarters have been inconvenient and funds inadequate, but after two years we can report that our department for occupations is no longer an experiment but a proved success, and present the following facts in support of the statement:

In the year beginning October 1, 1915, and ending October 1, 1916, seventy-seven individuals were given work in the department. At the end of this period twenty-four were holding wage-earning positions outside of the department; the highest wage received by any of these was $22 per week, the lowest $6. In the main these individuals were in positions for which their training in the department fitted them. In some instances, however, where the handicap had been mental, the individual returned to employment for which he had previously been trained, recovery being complete.

There were nineteen working in the department, four working at home under direction. Eleven had been committed and two went as voluntary patients to state hospitals; one was in a general hospital. Of the seventy-seven, only sixteen were not apparently helped in any way.

The sale of goods made by the patient workers amounted to $2,211.51, of which amount $1,356.95 was paid to the workers and $854.56 returned to the society for materials used, and there were on hand completed articles with a sale value of $1,008.57.

It has not been expected that the department would be self-supporting except in the matter of materials, as it is the plan to pass on the trained workers as far as possible to regular wage-earning jobs. The character of our product is of a high order. Its economic value is evidenced by the fact that in March of this year orders to the amount of almost $300 have come from a large business house in Chicago.

It is our belief, based on our experiment, that there are endless possibilities in occupations for the handicapped and in connection with our department we are establishing a course for those interested in directing such departments.

It is our hope in the next months to secure sufficient space so that we may still more diversify occupations. We now have needlework of many kinds, knitting, rug weaving, basketry, decorating wood and tin, ornamental cement work, the simpler forms of cabinet-making, doll furniture, and wooden toys.

It is contrary to modern ideas of economics to countenance waste. The establishment of schools and workshops for the handicapped, in hospitals and out, will make useful and happy many who otherwise would be a burden to their friends, the state, or themselves.

School Nurses in North Dakota

There are in North Dakota but eight nurses doing public health work, writes Miss M. A. Baker in a recent number of the *Journal-Lancet*. Two counties employ, instead of a deputy superintendent of schools, a nurse who includes in her work inspection of schools and children. Miss Baker says:

"One school board secured the services of an eye specialist to corroborate my findings of suspected eye contagion. I found seventeen; he found nine more and the doctor now holds a clinic twice a week and treats forty infected in that community. To care for such an outbreak there is no state aid, either expert diagnosis or funds for treatment. Being only little children, they get no protection in this state. Compare this procedure, or lack of it, with the prompt action taken in North Dakota with a case of hog cholera."

If any misanthrope were to put, in my presence, the question, "Why were we born?" I should make reply, "To make an effort."—Charles Dickens.

"It is with narrow-souled people as with narrow-necked bottles: the less they have in them, the more noise they make in pouring it out."

INOCULATION OF THE BACILLUS OF WORK*

Preparation of the Patient—The Occupational Diagnosis—Occupational "Applications," "Hypodermics," and "Lumbar Punctures"—The Therapeutic Value of Drawing and Modeling—Like Water, a Tonic and Alterative

By GEORGE EDWARD BARTON, A. I. A., Director of Consolation House, Clifton Springs, N. Y.

IN occupational therapy, the value of drawing may well be compared to that of water in materia medica. Its effects are fully as far-reaching. It can be made to increase or decrease temperature; it is an easily graded tonic and stimulant of the mildest type; it can be used to cleanse; and, in addition, it is a most far-reaching and powerful alterative, strong and helpful as iron.

Perhaps its greatest value lies in the ease with which it can be made to dilute and to "carry in solution" other occupations. Simple as it seems, it should follow, and not precede, such occupations as squeegee making, paper folding, Japanese brush work, etc., in most cases, and especially in cases of measles and other diseases in which eye-strain has to be considered.

Few are intolerant of it, for it is more natural for the human being to draw than it is for him to write. Habit demands little consideration; for even the artist can usually be delighted and helped by the study of projection, or of isometric; even the engineer or the architect charmed with the Japanese brush. The shipping clerk can be interested and helped by the study of lettering, a subject of equal value to the refined neurasthenic who is desirous of making place-cards, illumination, etc.

It is not dangerous, except in cases of eye-strain or cases in which the patient, by doing too much, becomes overtired, or cases in which drawing provokes other weaknesses, as may be the case, for instance, in sexual abnormality or in pulmonary tuberculosis.

There is nothing in the whole range of industrial life of such value. It is of far greater importance than is speech or writing, for it is the universal language of labor. A properly made drawing is intelligible to anyone understanding how to read drawings, irrespective of time, place, or nationality. It would take an expert engineer many times as long to express the simplest form in speech or in writing, so as to be comprehensible to the worker; and really complex forms of complicated movements could hardly be expressed by anything else but drawings.

For instance, a nail or a turning lathe could be described in simple language. But a screw or a screw-making machine could not possibly be so described because their very essence is complex.

But to teach drawing, as is true of most subjects in occupational therapy, it is necessary first to stimulate the desire to do—to learn—in the patient himself. And you will all agree that this is by far the most difficult part of our work.

Because my own method seems to be proving of some value, I shall venture to explain to you, and to illustrate by cases, how I approach the subject, especially in regard to drawing and modeling,—for modeling is merely drawing in three dimensions.

Having received the physician's diagnosis of physical or mental condition, I make what I call an "occupational" diagnosis in order to discover, if possible, latent interests which are not at first obvious. This is the result of study of my first psycho-analysis, in which I probe not so much for sexual tendencies as for latent interests. I find frequently that a keen interest does exist, although quite as frequently the interest itself is overlooked by the man, who is usually as unable to analyze his own desires as is a patient to diagnose his own symptoms. This interest once isolated, I endeavor to handle it in much the same way that the physician prepares a bacillus for an autogenous vaccine; that is, the interest isolated, I try to surround that interest with a mental condition which acts as a culture in which the germ can grow. I shall give you cases later. If no "germ" can be found, or if it cannot be isolated, making an autogenous vaccine impossible, I inoculate the patient with what I call the "bacillus of work,"—of such work as will include the following fundamentals:

First, the preparation—the learning—of the work must fit the needs of the patient at the moment, and allow of such changes and developments as will follow necessarily in the convalescence and cure of the disease; *second*, the occupation must be one which once learned will be of value to the patient after convalescence is over. By value I do not necessarily mean money, although, indeed, in a vast majority of cases, remuneration plays an important part.

"It should be remembered that a return in money is not the only way by which a patient can remunerate society for his support and for the loss of his produce.

"If the patient can be sent back to his old job

*Presented at the First Consolation House Conference, March 15-17, 1917.

(in which it appears the majority always succeed better) with resistance so increased as to preclude further activity of the disease, that extra strength may be compared to 'surplus' or 'reserve'; if he has utilized the months or years spent in treatments in fitting himself to do his job better than he did it before, his gain in efficiency may be fairly considered an 'interest' upon the capital necessary for his support.

"If in addition he can, while under treatment, produce marketable goods of commercial value, that product may be classed as 'improvement of property,' decrease in 'running expense,' or 'unearned increment,' as the case may be, all of them items of such significance that 'masters of finance' disregard them in not the slightest degree anywhere *except in the institutions.*"[1]

All the other problems of medical diagnosis, so far as I know, enter into those of occupational diagnosis. All the variations of intensity and complications to be considered in medical diagnosis find their place here as well.

Many of the problems which come to us can be compared to the doctor's diagnosis of merely "overstrain" or "insufficient exercise," or "cold," or "rheumatism," which can in a very similar way be satisfactorily treated by a salve, a lotion, an antiphlogistic, or analgesic—cases so simple, occupationally speaking, that the patients can be induced to try to do something merely by careful conversational effort (by suggestion). The occupations and the treatment for such cases I call "applications."

But there are many cases where superficial stimulation is not sufficient, cases in which one has to get inside into the blood, or into the muscle itself. And for these there are occupations which I call "hypodermics."

But there are still other cases so very much worse that it is necessary to go right in through the backbone of the patient, in order to find out what the real trouble is, or how to relieve abnormal tension. These I call "lumbar punctures."

Now, just as it is safe to leave the occupations which I call "applications" in every bathroom, along with the hamamelis, those occupations which I term "hypodermics" cannot be left about so carelessly, because if the patient is to be uninjured, the needle of the hypodermic must be sterile, at least, even for a placebo; and you will, of course, see at once the absurdity—the criminality—of any but a practiced hand attempting a lumbar puncture.

As illustration of what I have called "applications," I shall cite the following case:

Early in the summer of 1915, I was asked for advice and assistance for G. S. This boy, 17 years of age, was the son of Swiss parents, both of whom were clean, healthy, and respectable. The father, though reported "stupid," had been employed by one of the best firms in New York as a blacksmith for some thirty years, but on account of failing eyesight, was obliged to give up his job. Two other children were reported "half-witted," and G. had been kept in the delinquent classes at school until he had reached the age limit fixed by law for such cases. It was said he could learn neither to read nor to write. Medical diagnosis (by a physician) pronounced him well in every way. Neurological diagnosis (by a physician) was merely "deficient." Psycho-analysis (by G. E. B.) discovered no abnormal sexual tendencies. Occupational diagnosis (by G. E. B.) showed interest in drawing, especially for what he called "pictures" (colored sketches of birds, etc.), and he liked to work with tools. His drawings were very neat, clean, and fairly good. Regarding reading, it "did not interest him." Of writing, he said, "What's the use? I have nothing to express."

I saw and talked with him in New York in July, 1915, and feeling that his weakness came really from timidity rather than from an inability to learn, I invited him to visit me at Consolation House. For three days I let him play with pencils and water colors, making birds, etc., observing him carefully all of the time. On the afternoon of the third day he went into one of his frequent "day dreams," and, after watching him sit motionless for some ten minutes, I asked him what he was thinking about. He said, "Nothing."

"G.," said I, "it is impossible. You may be thinking of something you do not want to talk about, you may be thinking of something unpleasant or something nasty, but even if you were thinking that you were not thinking, you were nevertheless thinking that you were not thinking."

This fundamental of Descartes was the first real impression I had been able to make on G. It struck him as being excessively funny. But, after some argument and a good deal of thought, he admitted that it must be true. Still he declined to tell what he had been thinking about, on the ground that it was "too silly." After a rather brutal forcing, however, he finally admitted that he did not see "why color could not mean something besides just color."

"G.," said I, "you *are* a fool."

This coming just when he had begun to believe that I thought him less a fool than anyone else ever had before struck him as a painful blow, as I intended it should.

[1] Barton: Occupational Therapy. pp. 50-51.

"I know it," he replied sadly. I took him at once to my library and read to him a selection from Pythagoras on "the essential qualities of numbers." I showed him old Chinese magic squares and cubes, together with the magic square of Benjamin Franklin, which Franklin admitted he could not understand. I then showed him the relation between the ancient Persian religion and the Chaldean mystics, and their relation to the modern theory of vibration. Then, after having deliberately caused his head to swim with the magnitude of the subject, I said, "G., I called you a fool, not because of what you said regarding color. I called you a fool for having an idea that you or anyone could, offhand, express an idea which has defied human expression for several thousand years."

The following day, as we were sitting in the garden, he noticed that my Canterbury bells were blown down, and suggested that sticks be placed by them.

"There are some old lath in the shop," said I. "Just chop them in halves with the hatchet and use them."

When he returned I found that he had neatly sawed and planed them. I said:

"G., why did you do that? I told you merely to cut them in halves."

"I thought they would look better," he replied. That evening, I said:

"When a friend of mine does something I do not like, I find it is better to tell him. And you have done something I do not like. You have lied to me."

This he denied. I said:

"You told me the other day that there was no use in your learning to write, because you had nothing to express. Then you straightway go and perform a greater amount of work than would be necessitated for the writing of an essay, and you planed the garden sticks because you wanted to express your desire for neatness and beauty in the garden. And you wrote it as well with a plane as I could have done with a pen."

"See!" he said, "there is a robin on top of one of the sticks now. It would be nice if it would stay there all the time!"

"Tomorrow let us make one of wood," I said. "We will cut it out with the jig saw, and *have* one there all the time."

"Yes," he said, "I saw some of those in a shop on Fifth Avenue once, all painted and fixed up."

Said I, "Why do you suppose they keep them in the shop?"

"Well, it must be that they sell them to someone, because they don't keep much in a Fifth Avenue shop that people do not buy."

"Well," said I, "while you are here, why don't you make some? Maybe you could sell some too, and help your father."

These two incidents, I think, show sufficiently my line of "treatment."

In spite of his desire to stay and work for me, I sent him back to New York filled with a desire to endeavor to express himself in other ways than by writing, but with a better realization of how handicapped he would be without a knowledge of what other people had done and were doing in the line in which he hoped to be proficient, and with a dawning belief in himself and in the value of ideas which before had seemed to him only too silly to be worth the endeavor to express.

Shortly after his return to New York, I received a letter from him, very poorly written, with no sign of punctuation, poorly spelled, but perfectly clear.

A letter notified me that G. had taken a position, found for him as an office boy at a novelty manufacturing company. Another letter a year later said:

"You will be glad to know that G. S. is doing well. He has continued at night school all winter, had his salary nearly doubled in seven months, and is now making $9 a week, because, in addition to proving of value as a general helper to the novelty company, he has also suggested one or two novelty designs which have been accepted. He is stimulated to do more work in that direction, perhaps independently."

While I doubt very much if G. S. will develop into an Edison or a Maxim, he has, at all events, proved that he is not a mental defective from a commercial point of view, and has supported himself, instead of becoming a charge upon the state.

He is a typical case of the type for which our educational system makes no adequate provision. His family unable to care for him, he might easily have been transferred to the dependent class, might easily have remained in that class from five to fifty years. The money spent for his support during that time would have represented the interest on a very considerable capital.

Here is a "Tinkertoy." This patient, 43 years of age, a bridge engineer, highly educated and refined, was worrying over an approaching operation. At first sight, I think, it would seem absurd and entirely irrelevant to offer to a trained constructor so simple a toy. The virtue, however, did not lie in the toy. I took it to him one day and said:

"There's a kid down the hallway whom I'm trying to instruct in joinery. He can't get over that old feeling that we all had once, that the post of a truss stands on the tie beam and sup-

ports the rafters. You'd help me a lot, and assist the kid also, if you'd make up a truss out of this fool thing, in such a manner as will demonstrate that the post is supported by the rafters, and merely prevents the tie beam from sagging."

The engineer's great knowledge of the subject kept him dissatisfied with the examples he made, for many days.

Now for those cases which I call "hypodermics." This patient, a man 32 years of age, confidential clerk in a big commercial concern, had a kidney operation, the wound from which refused to heal. His worry about the probable loss of his job and the fact that his sisters, instead of being supported by him, were paying his hospital expenses, prevented that upbuilding of his system which the physicians assured me was all that was required.

My occupational diagnosis was completely negative. I could find no trace of interest in anything suggesting work. My psycho-analysis had been conducted on my porch, and the only interest in anything which I could see breaking through his lethargy was in the scratching of an old white hen loose in the garden.

The teacher from whom I have learned what little I know of psychotherapy told me once never to disregard any keen feeling which I might have about a patient, however improbable or unreasonable it appeared to be at first. Well then, try the hen. Now, just as it is necessary for a doctor to have his tray prepared, his syringe sterile, and his serum at the right temperature, so is it necessary for us to have our occupational trays prepared if we are going to attempt an inoculation. I prepared my tray, in this case, by merely making up my mind as to the proper course of procedure; and at my next interview conversation was much as follows:

"Have you ever been to sea?"

"Yes."

"Out of sight of land?"

"Yes."

"Suppose you had been on a big ship, out of sight of land, everything was fine, and you fell overboard, and the ship went on, and it was night. What would you do?"

"Swim like the devil."

"Well, that sounds all right, but I wonder if it really would be the thing to do. How would you know that you weren't swimming towards Spain? And any fool knows that he can't swim to Spain."

"Oh, well," said the patient, rather bored at this seemingly useless conversation, "I suppose the thing to do would be to turn over on my back and float until the sun did come up and I could take an account of stock."

"Well," said I, "suppose now while floating your hand came in contact with a big box-like thing that was floating. But it's slimy, and dirty, and doesn't smell good. What would you do?"

"Climb up on it and rest."

"Wouldn't it be a sane thing to roll over and drown? What's the use of living if you're just going to live on a dirty, stinking box?"

Very much peeved and irritated, he answered that he couldn't expect to live on it, but only to rest on it until he could see something better to do.

"Well," said I, "this hasn't been foolish, because that's just what's happened to you. You *were* on a big ship, going finely, and you *did* fall overboard, and you *are* out of sight of land, and it *is* night, and you *don't* know where to swim, and I'd like to help you. But the only thing I can do is to push along a dirty, stinking box for you to rest on a minute. I wouldn't take the trouble to do that, if you had to live there forever, but just to rest on till the sun comes up and you can get your bearings. The doctors tell me that all you need is a little exercise and to eat. And if you exercise and eat, you've got to sleep, because you can't possibly help it. And if you do that for a little while, you'll be well. The sun *will* come up. I want to rebuild my henhouse, but I don't know anything about henhouses or hens, and I have to spend so much time talking to you fellows that I've hardly got the time to spare to hunt up the subject. Now you help—find out first what kind of hens we want to keep, what's necessary for them, what we've got to do to the henhouse to make it habitable, and then we'll do it."

He took the needle very nicely—started off the next day on a series of investigations to near-by henhouses, gathering information about hens and houses. It had been impossible to induce him to take even a short walk before. As he grew stronger and felt the joy of working on clean boards in the early mornings in spring, followed by a bath, and bigger dinners than he had ever eaten before, and afternoons quietly spent in studying the subject on which he was to work tomorrow, the result was inevitable. Incidentally, he learned enough of drawing and building so that, when a year afterward the little chicken ranch which he had started for himself burned down, he rebuilt it with his own hands.

But now to illustrate the really difficult case (though it has no direct relation to drawing)—the "lumbar puncture." A young woman highly refined and educated, anemic and psychasthenic, regarded her body merely as a rack upon which her nerves, like sharp hooks, supported her quivering emotions. She took no interest in outdoor

exercise or sports, and was rapidly burning herself out. Her interest in her own quivering emotions was taken as the germ from which to prepare the vaccine of work. Now for the culture! It is obvious how easy it was at first in conversation and by reading aloud to stimulate this already keen interest with such subjects as mysticism, eastern philosophy, etc., and the step to Maurice Maeterlinck's "The Treasure of the Humble" was an easy one. From that to the same author's "Wisdom and Destiny" was also simple, but here the temperature was slightly changed, and the argument and conversation turned more to the physical questions of life than to the purely metaphysical ones. It was natural to go on with the same author, and with "The Life of the Bee" came an interest in practical experimentation with what had begun as purely metaphysical speculation. Practical experimentation meant the purchase of hives, the introduction of swarms, sitting out of doors in the sun and watching the bees, and the rapid change from the mere speculation regarding their psychic qualities to the endeavor to better provide for their physical well-being.

I hope that I have given you enough to show my method of dealing with the stimulation of interest.

Drawing is commonly supposed to be an art for which an individual must have a talent. It is true that some, largely owing to the fact that they have more accurate vision, become proficient more rapidly—more easily—than others. But drawing is a natural desire for almost every one. A child with a piece of coal, on a scrap of paper, at once begins to draw "a man," and his drawing is very similar to that of the early American Indian, the Aztec, or the Egyptian. Leave a child beside a mud-puddle, a sand-bed, a piece of butter, or a bit of mashed potato, and he will at once begin to model.

The ability to draw does not demand talent. To be sure, there is a life's work between the drawing of a dog or a man by the child, and the dog of a Landseer or a Barre or the man of a Michael Angelo.

But the drawing of figures, or even the whole subject of free-hand drawing, including as it does casts, landscapes, shadows, designing, etc., is but a part of the whole. Mechanical drawing, with its subdivisions of machine, architectural, isometric, projection, perspective, chartography, etc., still leaves the subject incomplete, for drawing is necessary for the expression of the designer or the inventor.

Each of these divisions is capable still of being subdivided, making an almost endless combination of interests and studies of different value, both therapeutically and reeducationally. The very fact of its intricacy and the great number of subdivisions, each involving different mental and physical exertion, instead of complicating the subject for therapeutic needs, makes it especially valuable and easy to handle.

One of the greatest difficulties in the teaching of the sick is to keep the patient constantly interested, while, if not constantly helping him, at least doing him no harm. To meet this difficulty, it is frequently necessary instantly and without previous consideration so to change the day's work that the interest may be maintained without injury to the patient.

For instance, suppose an occupational director is using drawing as an antipyretic with a given patient. The patient, having "discovered" on the previous day a most surprising result with the Japanese brush, is "just crazy to try it." Unfortunately, the very fervor of his desire has helped to increase, and not decrease, temperature. The teacher should change the occupation that day for the patient's good. But, unfortunately again, the suggestion that the work be given up, even for the day, frets the patient, who, by fussing, again increases temperature. The experienced teacher would not suggest a "change," but would become enthusiastic himself, seeing an application of the patient's "discovery" to stenciling, which, because it can be done in a recumbent position, because it produces quick results and is not easily spoiled, has a quieting influence, while leaving the patient with the thought that, though not doing exactly what he wanted to do, it is nevertheless along the line of development of his "work."

An elaborate outfit is not necessary for elementary instruction or practice. An understanding of plan, elevation, and section can be the result of a study involving practically no movement, be of great value to almost anyone, and requires no more than a sheet of cross-section paper and a penny pencil.

The well have a curious habit of forgetting that what is to them but a trifling inconvenience, to be patiently "put up" with, is to the sick a source of suffering, delaying recovery, if not actually hastening death. The well are scarcely ever more than eight hours, at most, in the same room. Some change they can always make, if only for a few minutes. Even during the supposed eight hours, they can change their posture or their position in the room. But the sick man, who never leaves his bed, who cannot change by any movement of his own his air, or his light, or his warmth; who cannot obtain quiet, or get out of the smoke, or the smell, or the dust; he is really poisoned or depressed by what is to you the merest trifle.—Florence Nightingale, "Notes on Nursing."

OCCUPATION THERAPY IN THE MENTAL HOSPITAL

Work for the Mentally Ill Should Be a Medical Prescription—Scientific Study Needed —We Should Know Types of Occupation Needed in Various Classes of Cases

By A. H. RUGGLES, M. D., First Assistant Physician, Butler Hospital, Providence, R. I.

"Absence of occupation is not rest,
A mind quite vacant is a mind distressed."

IN this quotation from Cowper, we find a prescription for occupation therapy given long before our institutions for mental diseases were writing such orders. Of course, this is not the earliest reference to the value of work therapy by any means, for in Ecclesiastes we read, "By much slothfulness the building decayeth and through idleness of the hands the house droppeth through," and many of the writings of ancient times have reference to the value of activities of all sorts.

In 1900 the first organized efforts at occupation therapy had their inception in Butler Hospital with a shop for the men, who were instructed in brush-making, broom-making, cane-seating, mattress-making, and various other forms of handiwork. In 1905 the work for women was organized under Miss Jessie Luther, after several spasmodic attempts by others.

If I were to detail the growth and development of these departments, I would only repeat what has been recorded by many others in both public and private hospitals caring for the mentally sick. I should, however, like to recount a few general principles of work therapy that we have found of value and to refer to some psychological principles underlying this form of treatment for the neuroses and psychoses. And before I state these principles, I want to offer a word of suggestion to parents, physicians, teachers, and all those dealing with the broader conceptions of mental hygiene. In the case of those individuals who have no definite "bent," the choice of occupation is often a vital one for their future health and happiness; as has frequently been pointed out in recent years, very few of us overwork, but some of us break down because of work with worry. For the neurotic and psychotic is this choice especially important because, unless the weak points of their make-up are, in a measure, overcome by their work, neuroses or psychoses may be fostered. We have seen many patients come into Butler Hospital as a result of a misdirection of their adolescent activities, and only too often the misdirection has gone on so long that proper stimulation along occupational lines is only successful in a small measure.

In the care of the nervous or mentally ill, work should be given only as a medical prescription; it should be prescribed only after careful mental and physical examination and with as much thought on the part of the physician as he would use in determining whether a given patient needs a vagotonic or a sympathicotonic drug. It seems to me that, in the past, much of our well-meant effort has been without system and has failed to make an accurate study of the individual needs, and the patient has thereby suffered. This systematization of effort can only be brought about by careful cooperation between occupation teacher, nurse, and physician.

First, not only must the teacher know the theory and practice of her profession, but also she should have a thorough grounding in the psychology of mental disease so that she can realize the desultoriness of the manic, the inattention of the dementia precox, and the discouragement of the depressed case. She must apply the soothing effect of rhythm in handwork as we find it in pattern weaving and other types of handicraft just as it is applied in music to create harmony, and must give due consideration to the stimulus on all classes of patients of useful work completed.

Secondly, the nurse, to be an efficient factor, must be trained in occupation therapy. The time should already have arrived when the training school for mental nurses that does not include some practical instruction in work therapy in its curriculum shall be considered negligent. We would not think of letting our nurses graduate without a practical knowledge of the effect on their patients of digitalis or thyroid extract, and yet how often we still witness the spectacle of the nurse watching the mental patient trying to complete a given piece of work without knowing whether that patient is deriving harm or good from the task. Probably not more than 10 percent of our patients get either of the drugs mentioned, while certainly over 50 percent are in need of occupation therapy.

Thirdly, it goes without saying that the doctor understands the psychology of mental disease and appreciates the principles of employment, but that is not enough; he should, in addition, be imbued with the belief in the value of work and be able to impart that to all about him until every patient that is allowed occupation (and very few are not) is filled with the spirit of work and accomplishment. I know of no more encouraging sign in the progress of a case than to see the depressed, egocen-

tric, ambitionless individual begin to execute work that is to benefit some other person. Then we know that the vicious circle has been broken through and that we may hope for further gain. The physician should understand fully the relation of occupation to the stimulation of attention, the value and application of which we see especially in the dementia precox case; to the development of judgment and insight, as tested by choice of colors and materials and by appreciation of the value of the completed product. He should be able to prescribe employment in the endeavor to broaden the field of ideas, and to do this he must realize the importance of giving the patient work entirely different from his accustomed task. We too often fall into the error of letting our patients do what they can already do, because it is the path of least resistance, without considering that we may be adding to fatigue-poison already damaging the nervous system.

The direction of an overplus of energy is a most important physiological consideration that should engage the attention of teacher, nurse, and physician, and often results in getting an active patient to do much of the work of a ward instead of upsetting the whole place and all its occupants.

All of our hospitals can show examples of active disturbed patients who have been given a chore to do and in doing it have become quiet and constructive, and I feel very sure that we could, each one of us, multiply such examples in our individual institutions if we had the patience and vision to experiment.

I know of no better tonic for the depressed patient than the beholding of some article which he has completed and which he realizes will serve a useful purpose, and we must guard very carefully against giving the down-hearted individual a too long or difficult task, for in so doing we may lose his entire cooperation. Not with the depressed cases only, but also with many other types, is the psychology of useful accomplishment a potent factor for good. The patient with feelings of unreality and vagueness or the one with antisocial trends is brought back toward the real and the personal in life when he sees that he has produced some article that will serve as an integral part in his own home or be of use to the hospital ward or have monetary value in a sale. Certain practical aspects of the problem may be of service. Work out of doors is most valuable. We do not fully utilize the fresh air and sunshine as therapeutic agents. The old-time argument of certain patients and relatives that they did not seek hospital care to be put to work should be forever silenced with the reminder that he sought the hospital to regain health and that in work he may best attain that end. I know of no more healthful and useful pursuits for men, and women too, than can be found in a choice of some of the following: gardening, trimming trees, raking leaves, sawing and chopping wood, laying out roads, tennis courts, and ball fields, repairing fences, grading, and shoveling snow. The rich perhaps, even more than the poor, profit from these types of work and through them build up reserve for future stress and strain. Of course many months in the year a large number of our patients must be employed indoors, and for them the resources of our modern well-lighted and well-ventilated workrooms and wards furnish plenty of forms of occupation. I do want, however, to emphasize my great belief in the value of real physical labor, when possible, out of doors, as contrasted with a somewhat too prevalent tendency to allow patients to consume most of their energies on repeated attempts at baskets and other handicraft products of doubtful usefulness. In these days when we are all called upon to do valiant service and to labor hard under the heat and burden of the day, should we not introduce a spirit of real service and sacrifice into our institutional work courses?

In closing, I want to call attention to the need for more systematic and scientific study of the uses and types of occupation therapy and the psychological principles underlying. Is it too much to expect that we may have occupation charts showing the types of occupation indicated in certain psychoses and neuroses and that with them we will have directions for the length of time to be given and symptoms resulting from wrong application?

WORK ESSENTIAL TO CURE IN TUBERCULOSIS

Tuberculous Patient Needs Work After Disease Has Ceased Activity—Average Patient Spoiled by Rest

Dr. W. T. Brown of Valmora Sanatorium, Valmora, N. Mex., writes, in answer to an inquiry from THE MODERN HOSPITAL:

"I am firmly convinced that work is essential to a cure in tuberculosis; that is, of course, after practically all symptoms of activity have disappeared. I have tried a number of things, but so far have failed to find any work that interested the patients. I am sorry to say it, but it is true—the average tuberculous person by the time he gets to the sanatorium has been so thoroughly mollycoddled and given so much advice about absolute rest that it is almost impossible to get him to do anything. The majority I think would prefer to be fed with a spoon so that they would not have to go to the trouble of cutting up their own meat.

"I am going to start an automobile school where I shall teach the care of the automobile, repair work and driving. I shall also put in a complete vulcanizing plant and teach tire repair work. This I hope will interest them, and I think it will, because it will be teaching them a trade that will enable them to earn their living in this country."

WORK IN THE TREATMENT OF INSANE CRIMINALS

Indiana State Hospital Proves That Occupation of Patients Pays—The Therapeutic Value—The Financial Returns

By PAUL E. BOWERS, M. D., Medical Superintendent, Michigan City, Ind.

THE ancient Romans displayed their wisdom when they adopted the famous motto, "Labor omnia vincit" (Labor conquers all things). Work is a panacea for many of the mental and physical ailments to which human flesh is heir. The famous physician Galen once remarked, "Employment is Nature's physician." And true it is to a great extent, for, if the mind is absorbed by good, wholesome, suitable work, its tendency to dwell on physical and mental troubles is lessened and the adage "Out of sight, out of mind" is involuntarily transposed to "Out of mind, out of sight." The instances are many in which persons have been led to forget their maladies temporarily, their minds having been engrossed by some widely different subject, especially by a light, congenial employment.

It was not until about the last quarter of the last century that the subject of the treatment of the mentally sick was given any serious attention, and this was true even of the medical authorities who had in their care the mental unfortunate. At this time there was an awakening to the facts that there was a great field of therapeutics to be developed, that many cures could be effected among the insane, and that many mental conditions could be ameliorated by treatment. As a result of this awakening, the modern hospitals for the insane came into existence, and the insane have been treated for some time by various kinds of therapy. The latest among them to be adopted is industrial therapeutics or work treatment. It is to be regretted that this rational, reasonable, productive, and efficient treatment is not more generally employed than it is in our hospitals for the insane.

It is a sad sight indeed, on visiting the hospitals for the mentally deranged, to see the patients idly sitting around in lifeless monotony in detention wards, except for the never-ending drudgery of hospital chores and cleaning-up processes. A normal individual must have work to maintain a healthy state of body and mind, and, since this is the case, we can readily see that selected work for the insane is necessary. "Idleness is the parent of all vice and evil," a Teuton proverb asserts, and a noted churchman is quoted as having remarked, "The devil seeks the unemployed first of all." Therefore, why should the poor demented ones, once thought to be possessed of devils and evil spirits, not be doubly the victims of temptations, hallucinations and morbid inclinations, for lack of something to divert their attention from their lamentable condition? Work dispels all this trouble which idleness produces. Depression always prohibits or retards mental recovery; therefore, if recoveries are to take place, the depressions of idleness must be removed.

In recognition of this fact, a method of employment was devised and put into execution at the Indiana Hospital for Insane Criminals. A workshop 64 feet wide and 100 feet long, with plenty of light and ventilation, was constructed. Forty-two hand looms and two sock machines were installed. Forty-six criminal insane patients welcomed the chance to employ their minds and hands to help them forget their mental troubles in the solace of regenerative activity.

The purpose of this work is purely one of treatment and cure. Just at this point I shall not attempt to measure its medical value, but I am pleased to be able to report the following cases: One inmate of the hospital for insane criminals who, owing to his sad mental conditions, was very quarrelsome, unruly, and a source of great care and constant observation to the attendants in charge, took to his work with such zeal and energy that he soon became quite proficient, so that now he leads the remainder of the patients working at the looms and holds the record of making 18 yards of toweling a day. Another unfortunate, a terminal dement, who formerly marched up and down the hall of his ward making all sorts of gesticulations, grimaces, and incoherent soliloquies, now finds both employment and enjoyment in turning a wheel winding bobbins. A third case is one of a boy with suicidal mania, whose sole thought was continually occupied with self-destruction and who thus was an object of the strictest observation and care of his attendants. Since the work treatment has been introduced he has been made a sort of overseer of the looms, to see that they are all running smoothly. No longer does his mind find time to contemplate how to end his existence. He is so engrossed with a sense of responsibility that the suicidal inclinations are expelled and replaced by thoughts of industry and a feeling of being something important among his fellows.

These cases cited would justify the labor and

expense of introducing the work treatment from a humanitarian point of view alone. The patients themselves recognize the value of this treatment, as can be seen from the many and continuous applications for work in the factory. All sorts of exaggerated promises of good behavior are made by these applicants, who, as a rule, are among the most ungovernable.

Occasionally I receive letters on different subjects from the patients expressing their grievances, hopes, desires, fears, etc. When I was

Fig. 1. Right entrance to Indiana Hospital for Insane Criminals.

writing this article a letter in regard to this work treatment came to my hands from one of the patients, who was formerly regarded as vicious. It would perhaps be of interest to quote some of the statements he made:

"I would like to say it is vastly beneficial to the patients, in that, while the work in no way exhausts them, it gives them plenty of bodily exercise and at the same time keeps them mentally occupied. They rest better on account of having labored during the hours of the day instead of idling them away. Then they have no time for their petty squabbles or to nurse their imaginary fears or troubles. This in itself, I think, will be of great value in helping to restore those for whom there is a hope of recovery."

Now let me briefly state what actually has been done in our shop since its installation, December 1, 1915. Notwithstanding the fact that the workers were insane patients, the attendants themselves without experience as to the mechanism and operation of the machines, 3,057 yards of hickory shirting, 10,029 yards of linen toweling, 50 yards of cotton toweling, 35 yards of ticking, 121 woolen blankets and 9,946 socks have been made. Additional articles were manufactured, repaired and renovated at the shop: 600 socks from old yarn, 2,350 pairs of socks darned, 369 made complete or renovated, 40 rag rugs, 350 pillows made complete or renovated, 8 sisal door mats, 288 cotton flannel gloves, 820 mittens, 110 ear muffs, 99 cushions made complete or renovated, 56 sisal floor brushes, 61 pairs of sneaks, 2 regulations size U. S. flags, dusters, holly wreaths, paper flowers, 100 feet of paper chain, 1 brace and bit, 1 table, 1 desk, 1 waste paper basket, etc. In addition to this, all repair work, renovating, etc., of hospital bedding and clothing was done.

Other diversional occupation was furnished our patients in the form of intensive gardening by careful rotation of crops. During the last three years there have been raised, on a little less than an acre of pure sandy soil, the following vegetables: onions 80,000, radishes 43,600, beans 4,359 pounds, peas 128 pounds, lettuce 2,174 pounds, cucumbers 6 bushels, beets 39 bushels, watermelons 300, muskmelons 1,700, cabbage 850 heads, turnips 1 bushel, tomatoes 129½ bushels, horseradish 19 bushels, celery 11,000 bunches, red peppers 1½ bushels, swiss chard 24 bushels. This amount of vegetables was sufficient, except for potatoes, to supply the needs, during the season, of both the Hospital for Insane Criminals and the prison hospital, with a combined population of nearly 250.

Incidentally, there is an economical side to this method of treatment. The products have value. That lessens expense. Larger looms for the weaving of blankets and rag carpets will be in-

Fig. 2. Two baseball teams composed entirely of insane men in Indiana Hospital for Insane Criminals.

stalled as soon as possible, and then our shop will be a great commercial asset, more than it is at present. It is safe to say that, after all the institutional needs are supplied, we can find a ready sale in the open market for the excess products.

The value of industrial therapeutics or work treatment is threefold: First and most important is the good that is received by the patient. He is led to forget the misery of his mental state; the obsessions which continually harass and torment him are relieved; their direful influences rendered less noticeable and painful. The patient loses to a large degree the tendency to introspec-

tion and retrospection, becomes happier, more quiet and peaceful; the course of his mental disease is retarded and there is a general improvement in his physical condition, brought about by exercise which produces better appetite and restful sleep. The habit of masturbation is very much repressed; the thinking processes are carried on in a more orderly and logical manner, and occasionally social recoveries will take place even

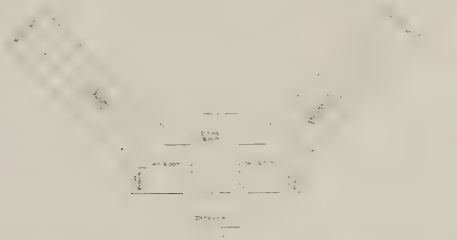

Fig. 3. Plan of first and second floors of Indiana Hospital for Insane Criminals.

among those who have been classified as hopelessly insane. Secondly, there is less destruction of clothing and hospital property; discipline is improved.

Thirdly, the institution and the state derive benefits from the work plan. More recoveries take place; fewer attendants are needed; institutional property is better preserved; expenses are reduced on clothing and food items; and thus the hospital becomes self-supporting to a certain degree.

The committee of the American Medico-Psychological Association of 1913 made the report on

Fig. 4. Third floor plan of Indiana Hospital for Insane Criminals.

diversional occupation as follows: "Diversional occupation, scientifically and systematically applied, marks the standing of a hospital, and if neglected or omitted the patients are not receiving the most modern care and treatment to which they are entitled." Once this idea becomes general, not so much time will be spent in building palatial hospitals. Patients do not derive benefit from excessive ornamentations and undue outward show. Plain, commodious, sanitary buildings, healthful surroundings, wholesome food, and work to divert the mind are essentials to bring about recovery. This is accomplished by gladdening the sad heart of the poor patient, thus dispelling the baneful nebulæ which cloud his intellect—by making him realize and feel that he is not forsaken or persecuted, as so many fancy, but that every effort is being brought to bear to place him upon the plane which Nature has intended for everyone to occupy.

It is my personal opinion that 75 percent of all the patients at the Indiana Hospital for Insane Criminals can be employed 75 percent of the time. The patients now look on the opportunity of working in our shops as a much-coveted privilege, and a very noticeable improvement has been made in the conduct of many of them to earn the chance to do and make something that is worth while. It is sincerely hoped that we shall in a short time be able to give every patient who is mentally and physically able to work an opportunity to find pleasure and relief from the ordinary irksomeness of institutional life. The experiment here has proved beyond a doubt that work treatment is valuable and necessary.

Suture Manufacture in America

At the outbreak of hostilities in Europe a very serious problem was presented in view of the fact that practically all of the raw catgut used in this country for surgical purposes was made in Germany. A committee of the American Chemical Society, on looking into the matter, finds that existing conditions are not so serious as pictured; in fact, they are very promising.

These very essential requisites of the surgeon are not catgut at all, but result from the proper treatment and curing of sheep intestines. American manufacturers have for many years been very skilful in converting the cured gut into a high-grade suture, but as in other lines they have taken the way of least resistance and have been content to import the raw materials. As the demand for this very important article increased, it became necessary to look about for a domestic supply.

Naturally, the attention of the great packing houses was directed to this subject, and almost over night several plants were erected, equipped, and the method of manufacture perfected, so that toady not only are the intestines used for sausage casings but many thousand are being consumed in suture manufacture. The methods employed in curing the gut have been held as more or less family secrets on the other side of the water, but when the Yankee got busy he soon unraveled the secrets, and today is producing a cured gut which is far superior in strength and appearance to that formerly imported. Not only have American manufacturers produced a better raw material, but also the suture manufacturer has kept ahead of the times by making many improvements in the methods of sterilizing and storing the finished product.

ALLEN ROGERS,
Chairman American Chemical Society.

SOME PRINCIPLES OF OCCUPATIONAL THERAPY

Essentials Are a Well-Defined Program of Work, Carefully Studied Adaptation to Patient's Condition, and an Expert Industrial Director, Not a Mere Shop Boss

By ELIZABETH G. UPHAM, Director of Art Department, Milwaukee-Downer College, Milwaukee

ONE of the most interesting developments in medicine and social work in the last decade has been the discovery of the tremendous therapeutic value of work. The old-fashioned idea that a patient could do no productive work, though all his mental and physical energy was not impaired, has given way before the knowledge that idleness may be as pernicious to the sick as to the well in destroying ambition and undermining character. For some time patients able to work have been employed in the domestic service and about the grounds of public institutions. The work of such patients was found not only not to be detrimental to them, but in many cases to have a positive curative quality. It was noticed that idleness, with the accompanying depression, time to worry over symptoms, to fret about the future, and to chafe under restrictions, aggravated the disease itself, while the lack of interest and direction of thought in cases of mental disorder actually increased the unbalance. At first, the benefit of occupation was supposed to be in its time-killing characteristics. In certain advanced and chronic cases, this is all that can be claimed for it. In other cases, however, in which there is hope of partial, if not complete, recovery, occupation is found to have certain definite effects. It centers the patient's attention away from himself. Thus mental debris is cleared away and the real physical symptoms remain, which form a reliable index to the physician in diagnosis and prognosis. The effect of manual work is to strengthen muscles and coordinate the body. Change of occupation stimulates the brain, while continued application concentrates it. Employment, moreover, gives a brighter and healthier point of view, which reacts favorably upon physical conditions.

The purposeful occupation of patients in public institutions is not new. For many years there has been an increasing appreciation of the value of work as a remedy among people who have broken down mentally, nervously, or physically. Much credit is due to the pioneers, especially in the state hospitals, the men who broke through tradition and who dared to put their patients to work.

The modern science of therapeutic occupations for the handicapped is, however, scarcely more than a decade old. It is impossible to say to whom should be given the credit of the system which is now transforming the hospitals for chronic invalids. Dr. Herbert J. Hall of Marblehead, Mass., was certainly one of the first to see in a broad and comprehensive way the possibilities of an adequate system of employment for the sick. Thirteen years ago he established at Marblehead special workshops, not for the insane or the dependent, but for men and women of means who have broken down under the strain of modern life. He found that carefully prescribed work was his best remedy in dealing with the complex and discouraging symptoms of nervous exhaustion.

Since then, the experimental stage has long been passed, for hospitals and sanitariums all over the country are alike testifying to the value of work as a therapeutic agent among widely different types of disabilities. Industrial work for the insane has progressed extensively. Wrentham State Colony[1] reports 95 percent of its 640 insane patients occupied, and the Gardner State Colony not only reports 92 percent of 740 patients employed, but gives a list of occupations, varying from sewing, mending, preserving, and pickling for the women, to blacksmithing, machine tending, carpentering, furniture making, masonry, painting, tailoring, and farming for the men. Arequipa at San Francisco and other tuberculosis institutions have found industrial work invaluable in the cure of tuberculosis. The Sharon Garden pottery comes from the trade school and convalescent home for cardiacs in New York. Massachusetts General Hospital and the City Hospital of Cincinnati have workshops as part of the hospital equipment. So successful has been the occupation of patients, wherever tried, that it is only a short time until a well-defined program of work will be part of the medical treatment of all private and public health institutions.

A well-defined program of work means the adapting of work suitable for special abnormalities. It is not to overtax the patient, or to exploit him, but to teach him to help himself, to utilize to the full his limited capacity, and, whenever it is possible, to increase that capacity to greater physical and mental vigor through the training of hand and mind.

A well-defined program of work should be contrasted with the more or less haphazard employ-

[1] In Massachusetts.

ment of patients which still exists in many institutions. There is a vast difference between employing patients to accomplish the work of the institution and suiting the work of the institution to the patients. In the former instance, only those patients who fit into the institution's general scheme are employed, and, while they are in danger of overwork, others are correspondingly idle. Under this system, women patients who wish to use their hands are given sewing and knitting. They are not intelligently supervised, and so the opportunity for coordinating hand and mind, for developing certain mental processes, and for the real therapeutic value of the occupations is lost. The fact is, the patients who are misfits, who are listless and do not want to work, or who are without interest or initiative are in many cases the very ones to whom it is most beneficial. As basketry is taught under the old system, its chief value is time-passing. The patients who do not become bored are quite content to go on making the same baskets day after day, and the few who have initiative vary the stitch and pattern. Basketry in the hands of one specially trained for occupational directing is quite different. The patient's methods of work are studied in consultation with the physician, and occupation is accordingly adapted. The patient with initiative is perhaps restless and excitable, and mental poise and relaxation can best be secured by the monotony of a simple stitch on a large piece of work for a fairly long period of time. The patient who wearies quickly needs shorter and more frequent intervals of work, with a number of small pieces which have variety enough to hold attention, but which are sufficiently alike to permit the corrective effect of continued application. The patient who is content to stay in a rut, and who will make the same thing over and over again, is the very one who should have a variety which leads to more and more complicated processes of execution and thought. Under the old method, the teacher failed to reach the disinterested patient. The well-trained industrial expert watches for the psychological moment when a bit of bright-colored raffia may attract the attention of the indifferent patient. That patient's conscious or unconscious reaction is the first step. However slow the progress may be, and however little of it is the patient's own effort, each motion is nevertheless a definite gain. The moment a patient advances so far as to have an inclination or to express a choice of pattern, there is more than decision developed. Execution logically follows decision, and a host of mental forces are at work. These may be stimulated or centered, as the case may be, in a hundred different ways. A work chart, tabulating periods of time, quality of work, and observation of the effect, should be filed with the medical data, and frequent consultation with the physician insures the necessary close correlation between the two.

The particular industry selected for the patients is of minor importance, provided that it is not unfavorable to certain diseases, as steam, fumes, and bending over would be to the tuberculous, or heavy lifting to the cardiacs. The important feature is the way in which the work is directed and the method of suiting the process to the patient, not the patient to the process. Work of a very practical and economic nature holds all the possibilities for constructive treatment. For instance, laundry work may be an ideal occupation for the insane. The large, easy motions and the soothing effect of warm water are beneficial in certain cases of dementia and restlessness. Hallucinations may best be forgotten by having the attention focused upon something outside the patient which requires the patient's fullest power of concentration. As each patient will have a different capacity for concentration, there must be a variety of occupations which require different degrees of concentration. The work of sorting in laundries, tending mangles, and hand ironing meets just these needs. The running of sewing machines and the cutting and fitting of garments also demand varying degrees of concentration, while the sewing of a monotonous seam is to another patient the relief of an overwrought brain. Some patients need individual work without the confusion of others; others need the stimulation of community effort. Some need to have the mental aspect of the work emphasized, others the manual, and still others need a close coordination between the two. Dishwashing, efficiently done, is an example of the latter. The treatment is not so simple as finding the right occupation for the right patient. The condition of the patient is constantly changing and certainly should change in cases of recovery. The therapeutic value of an occupation is gone to some patients the moment the occupation is fully mastered, and recovery is measured by the systematic change from occupation to occupation, each demanding more initiative and concentration. On the other hand, the continued practice of an occupation long after its mastery, to other patients, gives just that poise and self-confidence essential to recovery. It is just this understanding of the possibilities of every type of work, and the well-timed change of occupation in close cooperation with the physical variations, which can make this work of inestimable therapeutic value, and without which it is merely negative and time-killing.

Directing work of this type is a new profession. Some hospitals are attempting to give courses in industrial work to nurses in the effort to meet the necessity for constructive work. These courses fall short in that they cannot be thorough, nor can the nurse have the background and practical experience necessary for the industrial expert. The training is, however, valuable in making the nurses intelligent assistants. The director needs to know much more than carpentry or laundry work. She needs training in the special industries and a great deal more. The secret of success of work among the handicapped lies primarily in winning their confidence. The industrial director has a particular opportunity in this field. A reserve which may have withheld vital facts from the physician and social worker will gradually break down in the intimacy of work and the daily and natural contact it brings. As the expert untangles their pathetic attempts at work, the patients become communicative and unconsciously look to her to untangle their bigger problems. Sometimes the help must come from developing the resources within the patients, and they can only recover as they help themselves. Here a keen understanding and breadth of sympathy is necessary on the part of the director who gains confidences through the medium of work. A shop boss or nurse untrained to the large social viewpoint is unqualified to meet this aspect of the work.

The industrial director must also have an economic background. She must understand purchases, supplies, and markets. She must anticipate the public demand when articles made by the patients are to be sold. She must know that artificially stimulated markets are fundamentally wrong, and that the work of the handicapped either by overproduction or underselling must not interfere with normal industry. She must, moreover, have infinite tact and patience as well as the force of discipline, and above all the medical point of view, without which all can fail in lack of intelligent cooperation with the physician.

The therapeutic value of work is not the only necessity for occupation for the handicapped. The economic significance is a consideration of the utmost importance. The handicapped are not, as a rule, those acutely affected who pass through the hospitals after a severe illness to return to work with undiminished earning capacity. They are rather that group who, from birth, accident, or long illness, are subnormal. They are not entirely helpless, neither have they full mental or physical power.

The handicap, whatever form it may take, brings with it a certain mental state which renders the victim far more unfit to be a wage-earner than does the actual handicap itself. It is the consciousness of disadvantage and the willingness to blame the handicap for lack of ambition and for aversion to work. This mental state is inevitable if the handicapped are allowed to be idle and are not properly taught to help themselves. It is brought about in a number of ways. The ambitious have struggled with superhuman effort to compete with normal demands, in spite of serious handicaps. They have met defeat after defeat until discouragement has broken their spirit. Some cripples and a few of those incapacitated by industrial accident have become bitter and settle back upon the society which they think should bear their misfortune. The peculiar mental attitude of the handicapped is brought about in the vast majority of cases by the treatment of the patients in hospitals and institutions during a period of real helplessness. The ex-patient has lost his grip, learned the habit of idleness, and found that dependency is easier than struggling with impaired faculties. Although the hospital social worker is ready to help the misfit on his dismissal from the institution, she cannot make him keep his job if shiftlessness, moral weakness, the frequent accompaniment of physical lassitude, and habits of languor have undermined his character and ability. The social worker and those who come upon ex-patients of public institutions know these people present a distinct problem in their mental attitude. It is here that the real tragedy of the handicapped lies. Miss Cannon, head social worker in Massachusetts General Hospital, has said:

> "The long hours of idleness and tedium, especially in people who have not had the opportunity to develop resources within themselves, often result in the development of a habit of mind that does not readily adjust itself to consistent employment when the patient is again able to work. The hospital social worker sees these after-effects. To her we must look for the evidence that will make the hospitals more conscious of the necessity for eliminating this demoralizing by-product of medical treatment."

Another angle of the limitation of the ordinary hospital treatment comes from Mrs. Solenberger's records of homeless men applying to the Central District of the Chicago Bureau of Charities for help. She found that habits of idleness learned in hospitals, coupled with incomplete convalescence, are responsible for a large part of society's vagrant and difficult classes. Modern science has taught that vagrancy, delinquency, criminal tendencies, and inefficiency may all be due to physical reasons. The time to prevent these maladjustments is before habits have become fixed. Inasmuch as many of these cases pass through the

hospitals, the hospital holds the key to the future welfare of a large population.

The Industrial Commission of Wisconsin has an interesting report of case after case of men who have returned to self-support after sustaining the loss of eyes, hands, arms, legs, or feet, not only without lessened earning capacity, but actually with increased wages. The point is that these victims were adjusted to work before discouragement and the ravages of idleness had claimed their toll. From a multitude of sources, and from all who have worked with the handicapped, there comes but one thought: help at the critical time, help before ambition and character are undermined, before the fatal mental attitude is formed, and before self-respect and self-support may be supplanted by chronic dependency and parasitic living. Sooner or later those who have undergone these changes come back upon public or private charity. As a point of economy, it is cheaper to keep these patients through an adequate period of convalescence and to give them some form of industrial training than to support them in idleness the rest of their lives.

There is something wrong when a patient comes to a hospital and is dependent upon public support. If the patient is a victim of circumstances for which he is in no way responsible, it is short-sighted to turn him back upon those circumstances less able to cope with them after illness than before. It is better to return him completely cured and to have used the convalescing period as an opportunity to better prepare him for independence. If, on the other hand, he is dependent because of lack of ability, because of shiftless habits or mental, moral, or physical ignorance, there is no reason to believe he will be better upon his release, but rather the habit of idleness and dependency incurred in the hospital will have rendered his condition worse, unless an adequate convalescent period has not only built him up physically and morally, but also taught him something of hygiene and the orderly, industrious habits of work. This is the far-sighted economy. So closely does the Lakeside Hospital in Cleveland believe that work and physical conditions are interrelated that a record of the occupation of the patient with the material he has handled is kept along with his physical data. Thus the possible cause, together with the patient's possible return to industry, is continually before the doctor's mind in influencing his medical program. The Cincinnati General Hospital has an open-air school for children, where they are kept up in their studies. The teacher has been able to help the boy patients above school age, so that they have found better positions on their dismissal as a result of arithmetic in the hospital; a few have even passed civil service examinations. The girls above school age are given domestic science in a special laboratory kitchen. In many cases these girls are the housekeepers at home, as both parents are out at work. During convalescence they are taught home sanitation, care of children, and the value of food preparation. The hospital maintains workshops for adult men and women. Thus the transition from the hospital to the outside world is bridged by a system of occupations which begin with short periods and gradually increase until the patient is strong enough to meet normal conditions.

A discussion of the commercial side of the work of the handicapped would not be complete without the mention of the tremendous amount that can be saved in taxes when the labor of patients in public institutions is organized to its fullest productivity. The Gardner State Colony for the Insane employs its patients not only in the industries previously mentioned, but also in grading, excavating, road building, and the making of cement culverts. The products of the farm operated by patients amounted to $40,092.70 for one year. Dr. Kline of the Danvers State Hospital reports $1,400 a year saved on the one item of soap making by the patients, and another institution saved $5,000 in shoe repairing alone. Dr. Grout of Vermont State Hospital is quoted in "The Work of Our Hands," by Hall and Buck, as saying:

> "The work of the patients is profitable in every way: it lessens our per capita cost of maintenance very materially, probably 50 per cent."

Also Dr. Smith of New York State Central Islip Hospital says:

> "While the labor of our patients represents a definite saving in dollars and cents, we regard that as nothing when the beneficial effect on the mental and physical condition of the individual patient is taken into consideration. Benefit to the patient must be the first consideration, and first-class work the second."

Violence is diminished and every stroke of the hammer or every stitch taken, which does not overtax, is clear profit to the patient and community.

It seems reasonable to believe that the industries of several institutions could be united into one comprehensive scheme. This would mean an efficient cooperation and reciprocity, bringing the economy of large purchases and insurance of markets. Each institution could specialize in the work especially suited to the disabilities of its inmates, and produce work of such a practical type that a ready market is found in the other institutions. For instance, tuberculous patients can do carpentry and cabinet work, make dump

carts, office fittings, stools, benches, and furniture, provided the work is not of too heavy a type. There is no reason why the tuberculous men should not supply these articles and furnishings to other institutions, while the tuberculous women can do a lighter wicker work. The work should be first class and sold at market price, so that there is no interference with normal production. Part of the proceeds should go to the county for the maintenance of patients and shops and thereby decrease public support. The balance should go to the patient. If he is the bread-winner with a dependent family, his share should be forwarded to them. This relieves a congestion of charity somewhere else and gives relief through a just and dignified channel. If there is no such dependent family, his remuneration may be kept in a fund to be given to him at his dismissal. Such stimulation and equipment as this will not lead to physical and moral bankruptcy. Laundry work in a centralized laundry, sewing, mattress-making, and knitting machines are ideal occupations for the female insane, while the manufacture of concrete bricks, printing of public matter on presses, manufacture of soap from the waste fats of all the institutions, together with ground and sidewalk work, are excellently suited to the men. Mending, marking of linen, helping with hospital supplies, chair caning, and so forth, could be accomplished with limited equipment during convalescence in a general hospital. The actual industries could be varied to suit local needs and equipment, but their organization into a comprehensive plan is a sound economic procedure, and the employing of an expert, trained in the new science of directing industrial work for the handicapped, tends to increase the value of the medical equipment.

Work covering the variety of types necessary for a large number of different disabilities resolves itself into three main classes: remedial, alleviating, and temporary. Work among the hopeful cases of tuberculosis and insanity should be remedial in character. It should be considered, first, for its therapeutic value; second, for its preparation of the patient for a future industry; third, for its economy to the institution. Work among the chronic insane and incurables should be alleviating, and may be considered primarily from the standpoint of saving to the institution, provided it is not at the exploitation of the patient. Temporary work is for those whose convalescence is so short, as in typhoid, that a remedial program is not allowed. Neither is the occupation merely alleviating. It is valuable rather as regulated activity, and may be considered equally for its benefit to the patient and its economy to the institution. There is in the handicapped a fund of physical strength and mental energy which no community can afford to waste.

The first duty of any society is toward prevention;[1] the prevention of the handicap which produces those dependents who eventually become public charges in institutions is of the utmost importance. It is indeed shortsighted to build more institutions and elaborate equipment to accommodate these classes, when safety measures, eugenic laws, prison reforms, and segregation of the mental and moral defects are the only effective methods of preventing multiplication of the handicapped. Once these classes exist, however, society must learn that the best medical treatment and care is the cheapest in the end; that it costs less to train them to help themselves than to support them, and that the health and vitality of any community rests upon the adequate treatment of its subnormal.

The Jubilee of the New Hospital for Women

This London hospital celebrated its fiftieth anniversary last December. At the meeting, presided over by Lady Minto and attended by many prominent men and women of London, a sympathetic message of Queen Alexandra was read. Among the guests was Queen Amelie of Portugal.

The New Hospital for Women owes its existence and success to a few energetic women. In 1866 Dr. Elisabeth Garret founded a dispensary for women and children on Seymour Place. In 1870 she was joined by Miss Morgan, a graduate of Zurich University. In 1872 they opened a small hospital with 10 beds over the dispensary and named it the New Hospital for Women. In 1875 the beds were increased to 25, and Drs. Mary Scharlieb, Julia Cock, and Jane Walker became members of the medical staff. The foundation stone of the present hospital on Easton road was laid by the Princess of Wales in 1889, and the new hospital was opened in 1890 with 40 beds. In 1911 a new wing was added, increasing the number of beds to 71. In 1913 a country annex of 20 beds at New Barnet was established, to which patients after operation or acute illness are removed as soon as practicable. Funds are now collected to enlarge the hospital by 50 more beds. This history of the New Hospital for Women appears in a recent number of the London *Lancet*.

I think it is a very common error among the well to think that "with a little more self-control" the sick might, if they choose, "dismiss painful thoughts" which "aggravate their disease," etc. Believe me, almost any sick person, who behaves decently well, exercises more self-control every moment of his day than you will ever know till you are sick yourself. Almost every step that crosses his room is painful to him; almost every thought that crosses his brain is painful to him; and if he can speak without being savage, and look without being unpleasant, he is exercising self-control.—Florence Nightingale.

[1] Edward T. Devine says that the majority of cases can be prevented. As estimated by Bushnell and Smith, there are 3,000,000 dependents in the United States, and the expense of their maintenance is $200,000,000.

OCCUPATIONAL THERAPY IN NEW YORK CITY INSTITUTIONS

Atmosphere of Wards Changed From Gloom to Cheerfulness by Introduction of Occupations—Some Industries Established on a Commercial Basis—Need for Rooms Convenient to Wards in Which Occupations May Be Carried On

By SUSAN C. JOHNSON, Director of Occupations, Department of Public Charities, New York City

A COMMITTEE on occupation was appointed by the commissioner of public charities, March, 1916, to work in cooperation with the New York City visiting committee of the State Charities Aid Association. This committee has undertaken to demonstrate that the mental and physical condition of the patients and inmates of the public hospitals and homes (almshouses) will be improved, that they can contribute toward their self-support, and that they will be morally uplifted if they are provided with occupation suited to their capacity. On August 1, 1916, a director was appointed, who spent some time in surveying the field and laying plans for the work, which was actively commenced with the appointment of a teacher of handicrafts to the Neurological Hospital on Blackwell's Island, in October, 1916. Since then from 120 to 130 cases have been surveyed; 61 of the patients are now occupied, nearly all producing articles of intrinsic value; 35 or 40 patients seem incapable of producing anything of commercial value; theirs would seem to be cases for purely diversional occupation. Unfortunately, the remaining 24 or 29 patients are not being reached for lack of teachers.

During the period over which the work has extended, the atmosphere of the wards has been largely changed from one of gloom and depression to one of cheerfulness and comparative happiness. Individuals who were subject to daily spells of hysteria have been entirely free from such attacks since habits of activity have been established. Others who were formerly morose and indifferent now take not only an active interest in their own work but also a friendly one in that of those about them. Whereas patients at first refused to consider occupation, it is now one of the teacher's greatest trials that she must turn a deaf ear to those who complain of being unemployed.

Visitors who knew these wards as they were six months ago speak of the change as a wonderful demonstration of what occupation may do to mental depression.

Numerous occupations have been employed to meet various physical and mental disabilities. It has always been the aim to produce something which in itself is worth while and so maintain a balance between the pathologic and the economic sides of the work. Almost without exception this has been accomplished through thoughtful selection of materials and designs and through careful supervision of the patients' efforts.

One of the industries which has been established upon a commercial basis is that of the manufacture of tennis nets. These nets have been pronounced acceptable by several New York business houses. It has been proved that comparatively few of our ward patients have the proper capacity for making nets. An experiment with tuberculous patients seems to indicate that the occupation will be a suitable one for such persons.

Two other centers of work have recently been established at one of the general hospitals on Blackwell's Island, as well as one for the aged women at City Home. At one of the former, trade instruction is provided for a group of girls with specific history. The other center includes the convalescent sick and a group of crippled children. At the City Home the women have knitted a large number of socks and have made surgical dressings as well as rugs and articles of clothing. In all, there are now six centers where work is being carried on under the committee. The articles made are disposed of at private sale and a portion of the profits returned to the patient or inmate.

All of the work is now being financed by the committee on occupation, but it is probable that it will be incorporated into one or another of the municipal departments when once demonstrated as being worth while.

It is obvious that not only is the time and strength of a teacher conserved if the patients can be grouped together for instruction, but also that the tedious hours of convalescence or chronic illness are lightened by a change from the ward to the occupation room, especially if this is made attractive and homelike.

The experience of having established occupations in a hospital built and operated under the old order of things, with no workrooms provided and no conveniences for carrying on work, has been convincing evidence that modern hospitals should be built with rooms for occupations convenient to the wards. Also, provision for dry

sterilization is important, as the attractiveness of the articles made will often be destroyed by immersion or a steam process.

If one were skeptical of the desirability of having a workroom as an established part of the hospital, he need only visit the little back porch room recently constructed on the men's ward at the Neurological Hospital and contrast the group of cheerful, busy workers there with the dull, apathetic faces of the patients inside the ward. Also any proposal that one of the men in the shop give up his place would prove how he values the privilege of coming there.

The experiment under the committee, even though of short duration, is only one more demonstration that the work cure has an important place in healing mental and nervous disorders, that it may cheer and hearten the aged who are unhappy in idleness, and that it has considerable economic value.

OCCUPATIONAL THERAPY AT MUIRDALE

Fund Set Apart for Recreation Among Patients—Arts and Crafts, Carpentry, Cabinet-Making, Photography, Etc., Taught Convalescent Patients

By RACHEL HORNER, Director Industrial and Recreation Department, Muirdale Sanatorium, Wauwatosa, Wis.

LAST Christmas-tide an Englishwoman, whose husband had suffered for many years with tuberculosis and who had watched over and nursed him herself during each sad stage of the disease until he went on the last journey, expressed a wish to be taken out to Muirdale. She wanted to see what was being done in these days in the treatment of tuberculosis. After seeing all that there was to see, she came to the workshops. There the ambulant cases among the patients were busily engaged in preparing a dozen or more large trees to be decorated for the Christmas festivities. All about was bustle and merriment.

"Say, this tree's the prettiest—it oughta go to the kids."

"Don't you forgit us guys in the cottage! We gotta have trees, too!"

"Who's gonna be Santy? Possell, you're nice and fat, you'd make a good one!" And thus it went.

When each patient had gone for his rest hour at eleven o'clock, the visitor said, "If you only knew what this work is going to mean to these men! It is not only a great blessing to those who can get well, but to those who do not it will stand as a benediction over a few hours of freedom from the thoughts of hopeless suffering."

This workshop was opened up at Muirdale in January, 1916. Muirdale Sanatorium, being well known because of the excellence of its equipment and management, needs very little introduction to the medical world. It lies one mile west of Wauwatosa, Wis. The superintendent of Muirdale is Dr. Glenford L. Bellis.

In November, 1915, when Muirdale was first opened, Dr. Hoyt E. Dearholt, secretary of the Wisconsin Antituberculosis Association, announced that a sum of money amounting to $1,000, to be known as the Foster Bequest Fund for Recreational Work among the patients, had been given to Muirdale. At the suggestion of Dr. Bellis a department known as the Industrial Recreation Department was organized for the staff as an aid in the method of treatment for tuberculosis at Muirdale. By the following January, through the cooperation and direction of Dr. Bellis and the Milwaukee County Board of Administration, the work of this department was well under way, and in fifteen months following it has proved to be a success in every way as well as a necessity in the treatment of the patients.

When the physicians in charge find that a patient comes to such a point in his treatment that he is fit for and needs light exercise, he is sent to the workshops. The time for a beginner is usually limited to half an hour each day until he improves. Careful watch is kept over the patient. If he runs a high temperature or if his condition be otherwise affected he is dropped from exercise and made to rest until an improvement of his condition warrants another trial. This state of affairs seldom happens, however. Nine times out of ten the patient improves when given light exercise, and improves so rapidly that in a few weeks he is able to perform three or four hours of good, stiff manual labor. After a patient has performed such a schedule of exercise for from six or ten weeks to several months, if examination shows that his physical condition warrants it, he is discharged as a cured or arrested case, with muscles sufficiently hardened to enable him to resume work for his livelihood without risking an early breakdown due to overexertion.

Out of a total number of about 270 patients at Muirdale, a weekly number, varying from 36 to 60, require graded exercise. This number in-

cludes men of all ages, women, and the older children.

The workshops are located in the basement of the administration building and hospital and occupy the entire east wing. Eight large, well-lighted and well-ventilated rooms are included in this wing. This gives the patients on exercise plenty of room where they run no risk of being overcrowded.

The workshops are opened for the patients from 9 to 11 a. m. and 3 to 4:45 p. m. every day excepting Saturdays and Sundays. The courses of instruction offered are arts and crafts, carpentry and cabinetmaking, manual training, basketry, and photography. One room is devoted to tailoring and shoe cobbling services. There is one instructor who supervises the whole department and teaches beginners. As the patients become skilled they act as foremen over the different squads.

It must be borne in mind that the medical point of view is never forgotten in the workshops. Even so, the workshops at Muirdale are making a good showing as a business success. The expenditures for all equipment and initial materials were $837.16; the total sales were $466.68; the total profits were $303.84. These facts make the future outlook of this work very hopeful. As they now stand, the encouraging results not only help the patient to take his mind from his work, but they go far towards making the plan of profit-sharing for the patients a possibility of the very near future.

There are many serious as well as amusing problems which have to be considered at Muirdale in connection with the workshops. The patients come from all social classes and are of many nationalities. One morning, when the squad of toy-makers reported for work, they found that some one had broken in and stolen all of their finished work. Eighteen men or so immediately ran to the instructor and in as many different languages, with much wild gesticulation, tried to tell about the theft. The culprit proved to be an angelic-looking little Italian boy—also a patient—who seemed to know nothing at all about the stolen toys until they were found hidden under his mattress. He had taken them that very morning. He was going home that day and wanted them for his brothers and sisters.

The patients take very readily to the idea of the workshop. Those who seem to be the laziest and most unwilling at first invariably turn out to be the most faithful and industrious before they leave. So far it has been the rule of the workshop to make nothing unless it has been ordered. This insures the sale of nearly every article made, providing it be made well enough, and does away with the common danger of loss through being overstocked with useless products. The patients at Muirdale have made tables, shelves, bird houses, boxes, toys, baskets, lamps, jewelry, copper bowls, silver napkin-rings, paper-knives, etc., as well as models of buildings for exhibition purposes and woodcuts for the printing of posters. When an order is taken no specified time is mentioned for the delivery of the goods. The customer is told that this is impossible, owing to many accidents and delays that are bound to occur because of the handicapped condition of the patients, but an approximate time is given, and so far everyone has seemed to understand and has appeared to be satisfied with the arrangement.

In order to be a continued success, the idea of the workshop seems to need to be fortified by the slogan of "Slowly but surely." The public must be educated to understand and trust the knowledge that articles made by patients are all thoroughly sterilized and are perfectly safe for anyone to handle without risk of infection. Then instructors will feel that to teach convalescent patients of tuberculosis is a very worthy, inspiring, and fairly profitable occupation. The idea needs to be advertised through exhibits (Muirdale is using this method right along), through a friendly push from all those interested, and, finally, through the hearty and sincere cooperation of every intelligent citizen.

The Discovery of Addison's Disease

Thomas Addison, sprung from the English yeomanry of Cumberland, physician, teacher, student, and diagnostic genius, carried on a series of observations for years before he found that tuberculosis was often at the root of the disease which now bears his name. Addison's disease, generally caused by tuberculosis of those little organs which lie just above the kidneys, is marked by extreme prostration, bloodlessness, a marked bronzing of the skin, and death. There may be other symptoms, but the weakness, anemia, and skin pigmentation are the most prominent.

The dogged determination which marked Addison's attempt to track a disease to its original source is the ruling spirit of twentieth century medicine. No half-discovered fact will satisfy the modern investigator. The ultimate object is sought in its entirety by an industry of search, a correlation of scientifically deducted facts and a concentration of effort. Addison was born in April, 1793, and died of brain disease, June 29, 1860.—Health News, U. S. Pub. Health Service.

A patient can just as much move his leg when it is fractured as change his thoughts when no external help from variety is given him. This is, indeed, one of the main sufferings of sickness; just as the fixed posture is one of the main sufferings of the broken limb.—Florence Nightingale, "Notes on Nursing."

OCCUPATIONAL THERAPY IN DEMENTIA PRECOX

Music, Marching, and Dancing Surpass All Other Means of Arousing Patients' Interest at First—Destructiveness and Untidiness Changed to Tidiness and Tractability by Music, Games, and Work

By ETTABEL MABIE, R. N., Occupation and Recreation Director Napa State Hospital, Napa, Cal.

OCCUPATIONAL therapy has a wide scope and is destined to be one of the leading agents in the care of the insane. It is not only destined to be, but in many hospitals is, now an established factor.

Occupational therapy is training the attention, focusing the wandering impulses on some definite object. With this in mind, the work is planned accordingly, whether it be work or play. The appeal is made to the imagination by giving the patients both familiar and unfamiliar tasks.

Fig. 1. Setting-up exercises for dementia precox patients.

The dementia precox patients are first appealed to through music, simple marching, and dancing. As soon as the patient shows any interest whatsoever in the music, she is taught time and rhythm by being led around to music, one beat to the measure, which is gradually increased to three beats to the measure. We have found this way of brightening them up has surpassed all our other efforts. These patients are then taken and their reeducation in the work class is begun. For instance:

A patient who for nine years was in restraint most of the time and who sat and pounded upon the floor with her heels until the boards were worn through was brought to listen to the music by two nurses. After listening a few minutes, she said, "I like the music!" the first intelligent thing she had said for years. She was brought several times to listen to the music, then to the dancing class, and was taught first to march, then to dance. Within two months she was changed from a destructive, untidy patient to a tidy, tractable one who takes an interest in her dress, dancing, and class work.

In this hospital the patients, with the exception of those confined to the bed, are out of doors much of the time. Those who can be trusted and are physically able are working on the farm and in the various shops. The idle patients in the yards are appealed to and their interest aroused by games, such as bean-bag games, rope quoits, relay races, shuffleboard, etc., the schedule being varied from day to day.

It has been found beneficial from time to time to give large afternoon parties, entertaining from two to three hundred patients. The programs are composed of readings, old-fashioned songs in chorus, and dancing. The refreshments are served cafeteria style. Smaller parties and picnics are given often for the class-workers.

The workrooms are made bright, attractive and

Fig. 2. Dementia precox patients playing a game of bean-bags.

cheerful, the furnishings blending harmoniously with the walls and hangings, which are a rich tan color. Various kinds of work are carried on in different rooms, which are fitted up with suitable equipment. We have classes in rug and lace weaving, basketry, copper and brass, tooled leather, wood carving, pottery, and needlework in all its branches.

Special mention should be made of the benefit derived by our dementia precox patients from clay work.

Our aim for the dementia precox patients is to alleviate and check their deterioration and, where possible, to make them comfortable, useful, and happy.

MAKING DEPENDENTS SELF-SUPPORTING

How the Associated Jewish Charities and the Jewish Aid Society Are Providing Opportunity for the Handicapped to Support Themselves

BY FRANCES TAUSSIG, Superintendent of the Relief Department, Jewish Aid Society.

Some six years ago the need of some provision for the permanently handicapped in our midst struck us forcibly. We reported to the Associated Jewish Charities that even ample funds for relief would not solve this problem—that we needed some machinery for making the families of these handicapped men self-supporting, rather than funds for keeping them dependent. After due investigation, the Associated established in 1911 what became known as the Self-Support Fund, for the establishment in business of these families. Five years' trial of this plan has proved most conclusively that the problem of the handicapped is not solved by supporting them in idleness. The business establishments of the Self-Support Fund have meant work for the incapacitated persons as well as for their families, but they have meant the opportunity of work under suitable conditions, without the strain of work in ordinary industry.

The self-support plan can, of course, reach only limited numbers. Constant progress has been made in its administration, and with the active cooperation of the membership of the Young Men's Associated Jewish Charities, even better, wider reaching results will be made possible. But what of the large number whom the Self-Support Fund cannot reach? What of the men, women, and children unfit for business, whom illness has condemned to lifelong idleness and dependency?

Until prosperity so suddenly struck us a year ago, we had been for years so close to destitution caused by unemployment, by acute illness, by hard times altogether, that all of our energies were bent on relieving this misery. When we realized that for the first time in our history things were actually taking a turn for the better, that we were for a time at least to be free from the care of the able-bodied unemployed, we realized with more and more force, from month to month, that our task for the year lay in this problem of the incapacitated.

Accordingly, an informal investigation was begun by members of our board of directors of the provision being made in other communities in occupations for the handicapped. It was found that the United Hebrew Charities of New York and the Social Service Department of the Free Synagogue, acting as a joint committee on tuberculosis, had made a splendid beginning in a model factory in the Bronx. This factory was established in June, 1915, as a shop for the employment of persons in an arrested condition of tuberculosis. Low-priced men's shirts were first made, then middy blouses, and now women's coats and dresses have been added to the product of the shop, which is being sold to business houses in competition with other factories. Patients work under the supervision of physicians and nurses, and are employed only as many hours of the day as the physician deems advisable. In most cases normal working hours are gradually resumed, and the earnings of workers now range from $10 to $23 weekly. Sanitary conditions in the shop are ideal, and all products are sterilized before being put into the market. The nurse on the premises watches the patients to prevent overworking, and is responsible for the proper hygienic condition of the shop and the sanitary conduct of the work. Adequate lunches are provided for patients.

An attempt is now being made to extend the work of this factory so that cardiac or heart patients may also be employed. No other specifically Jewish attempt of this sort is known of. However, in New York, under the auspices of the Burke Foundation, much work has been done with cardiac patients, and in the Sharonware Workshop, heart patients are being employed at the making of concrete garden furniture. This work has been found entirely suitable for these patients, and the products of the shop are being sold in the competitive market.

Other work has been undertaken by the New York Association for Improving the Condition of the Poor, in its old men's workshop, where toys are made by old men who are unable to get regular employment.

In Chicago, the Illinois Mental Hygiene Society has maintained industrial classes for several years, in which mental patients, persons released from hospitals for insane, and some whose condition has not warranted sending them there, are kept occupied at the making of rugs, baskets, toys, children's furniture, and numerous other articles. A high degree of excellence has been maintained in this work, and the products of the shop command good prices.

In our own organization we discovered about a year ago that there was an increase in the number of families becoming dependent upon us because blindness was preventing the wage earner from supporting his family. The state maintains a Department of Instruction and Visitation to Adult Blind, and through this department instructors are sent to the homes of blind persons, to teach, whenever possible, the occupations open to blind people. These include broom making, piano tuning, and basketry. The state's appropriation for this work is small, and we were frequently unable to secure a teacher, and on account of deficiency in equipment, the result secured from the work of the teacher was inadequate. We therefore decided to create a center for the teaching of broom making to the blind in our building, and on April 1, 1916, a teacher was sent by the state to give instruction on these premises.

The teacher remained with us until the end of June, after which the men continued to work alone. They have, in fact, themselves taught two new recruits who have been taken in since that time. The brooms, at first somewhat crude and poorly finished, have improved from time to time until we now manufacture a very respectable article. The Joint Committee on Work for the Blind of the various Jewish women's clubs have undertaken to market our product, with the result that we are now doing a flourish-

ing broom business, and with the further result that these men, whose families at the beginning of this work had been entirely dependent, have earned by actual work almost $500, which they would have otherwise had to receive in relief. One of these men, who had been placed in the infirmary at Oak Forest to spend the rest of his days in idleness, dependent upon the public, is now practically self-supporting. The apparent success of this small experiment, and the beginning in occupational work for convalescents made at Michael Reese Hospital last winter, assured us that it was possible to develop some practical industrial work for the handicapped. Accordingly, the experimental classes were organized.

The time is still too short to justify us in prophesying success for this venture. We know now only that some fourteen persons with a variety of diseases and handicaps, of which old age is not the least, have been given occupation under pleasant surroundings, and have been kept from idleness, which is the most demoralizing of all states.

Incapacity for work has come to be a relative term with us. A total incapacity should not exist with the development of instruction in occupations adapted to the physical condition and the mental capacity of a patient. Our blind men are receiving wages instead of a county pension, and we are awaiting the time when the greater number of this group will also receive wages, temporarily perhaps in experimental classes and later in normal industry, for work in which they have been reeducated.

During the last few years the fact has been fully recognized that the Jewish adult immigrant suffers in his attempt to adjust himself to American conditions by lack of vocational training. Many of the occupations in which these immigrants find themselves in the course of a few years are accidental. Many of the men who travel into tailor shops make the sort of tailors who are the first to be laid off during the dull season and the last to be taken back when the shop becomes busy. These maladjustments are found in only too many of the tuberculosis cases at Winfield, of the chronic heart cases which appear at regular intervals at Michael Reese Hospital, and of the incapacitated of every sort that crowd the West Side Dispensary. If, during the period of treatment and of convalescence of these sick persons, their relation to our industrial situation could be studied, and if that protracted time of treatment or of convalescence could be used as a period of reeducation, we would without doubt accomplish some constructive results. Instead of devoting ourselves to the raising of funds for the permanent care of the families of such incapacitated persons, why not devote our energies to the raising of funds and the providing of the means whereby they can be returned to a state of at least partial independence?

Perhaps through this work something could be accomplished with the individual who is commonly called by his better-to-do neighbors a *Schlemihl.* While not actually physically incapacitated, he finds such tremendous difficulty in adjusting himself, that he seldom if ever succeeds. As an instance, let us cite the accomplishments of our sewing shop, which we call the Cooperative Workshop. Two groups of women are reached through this activity; one, those who have never learned to sew even enough to supply the simple needs of their own children; second, those who can sew and perhaps have been taught in our classes, but who by reason of lack of skill and dexterity, or lack of speed, or their inability to leave their homes and children for long hours, are not able to find places in regular shops. Through our shop these women, all formerly entirely dependent, have been given the opportunity to support themselves in part by working short hours in pleasant, healthful surroundings, with adequate pay.

A most effective bit of cooperation has been carried out here. The shop has secured orders and made garments for the Home for Jewish Friendless, Orphans' Home, Michael Reese Hospital, Hull House, and the Needlework Guild of America, and supplies the relief organizations of the Associated Jewish Charities with all of the children's dresses, boys' blouses, and other articles of this sort which are needed in their work.

This time of comparative prosperity is the one in which, if ever, these problems must be worked out. The end of this fiscal year will show that the relief department, as well as many others, has decreased considerably the financial burden which they have laid on the Associated. The statistical reports of all of the departments to whom sick people come for medical or other assistance will show that the most serious burden on those departments is that of the physically handicapped. Unemployment of able-bodied persons is practically unknown at the present time. The B'nai B'rith Employment Bureau, with the most sincere efforts, is not able to place this great group of handicapped people with their present equipment for work. The provision of industrial training for persons of this type will undoubtedly mean an ultimate saving to the Jewish community of money spent in relief, in medical care, and in service, and a tremendous gain in every respect to the persons who, instead of demanding permanent relief, are equipped for self-support.—Associated Bulletin.

ANOTHER WAR PROGRAM

Suggestions Offered by the Cincinnati Municipal Tuberculosis Committee for Prevention of War-Time Tuberculosis

The Cincinnati Municipal Tuberculosis Committee, an advisory committee to the Anti-Tuberculosis League, on which are represented a number of municipal departments and civic organizations, has recently formulated a war program, based on the great increase of tuberculosis among the soldiers and civilian population of the countries now at war. This program, which has been submitted to the National Association for the Study and Prevention of Tuberculosis, embraces the following points:

Additional expert tuberculosis diagnosticians to be employed in connection with every recruiting office and for periodical examination of enlisted men.

Provision for recording information concerning men rejected for service in the U. S. Army or the militia because of tuberculosis, in order that these patients may be followed up and given proper care.

Establishment of federal camps for the cure of tuberculous soldiers.

Maintenance of standards of hours and wages for those engaged in making supplies for the government and in other occupations, such standards not to be lowered under pressure of war conditions.

Drafting of every employable patient and available employee into gardening work.

Establishment of Federal and state farm colonies for vagrant consumptives.

Tuberculosis work, in sanatoriums, in dispensaries, and in the field, to be included in the training of physicians and nurses.

The
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The War and the Hospital World

We have refrained up to this time from making any serious comment on the war, for the following reasons:

1. The daily papers are in very much better position to get the news about the war from the various sources of the news than are any monthly publications.

2. It has seemed to us that the less said, in the way of advice or editorial comment, on the war at this time, the better, because the business of preparing for hostilities is in excellent hands and is being pushed as rapidly as conditions will permit. Any advice that THE MODERN HOSPITAL could give would necessarily be based upon incomplete information and might be misleading both to those who are charged with the grave responsibility of the crisis and to our readers who have been accustomed to look for leadership to THE MODERN HOSPITAL.

3. It has seemed to us that there has already been a tendency toward a harmful hysteria in some quarters, incident to the war. While we feel that everything should be done that will profitably stir the public up to an appreciation of the gravity of the situation, and while we should even in our own minds work up an enthusiasm for the war, yet there is serious danger that this enthusiasm and excitement may become an actual hysteria and do very much more harm than good.

4. It has seemed to us that the time has come for work and not for talk or verbose comment.

THE MODERN HOSPITAL has given its best thought and best efforts to help those in authority decide some of the momentous questions that have to do with the health of the civic population and of the proposed new armies, with the preparations for the supplying of our army and navy on a war footing, and with the furnishing of supplies to the allies, and especially to our civil hospitals—and let us here give assurance to our readers that the interests of our civil hospitals are not to be lost sight of and that first of all their interests, their supplies, are to be thought about.

Briefly, the things already done concerning the war which are of special interest to hospital people are as follows:

The President, by advice of the presidents of a large number of civic and health and medical organizations, appointed Dr. Franklin H. Martin, of Chicago, as one of seven members of the advisory board of the Council of National Defense, and to Dr. Martin were assigned the medical, hospital, and health activities—not only those concerned with the war itself, but also those which concern the civilian population of this country. With a view to determining just exactly what should be done and how it should be done, the Council of Defense appointed a committee composed of Dr. Winford Smith, Dr. Washburn, Dr. Babcock, and Dr. Caldwell, of Pittsburgh, to standardize hospital and medical supplies for the war. While this scheme of standardization of supplies was in the making, Dr. F. F. Simpson, who had been made an active director of the medical and hospital bureau, summoned to Washington the large producers of staple hospital and medical products. During these conferences an immense amount of invaluable information was collected, and with this information as a basis the future activities could be rather easily mapped out. During the past three years the manufacturers of this country have been furnishing adequate supplies for the civil hospitals and the medical profession for our own army on a peace footing and for the war-time needs of our present allies, especially the French and English; now comes the sudden need to speed up the production of supplies sufficient to keep supplied continuously the vast army of from one to two millions of men that are in prospect.

Through the Council of Defense and its advisory board vast quantities of supplies have been bought and far greater quantities have been tentatively provided for; literally hundreds of

manufacturers have been induced to add to their facilities for production of those things that are to be especially needed, and there is a feeling in well-informed circles that, whatever else happens, the producers of medical and hospital supplies can be counted on to do more than their share.

While the work of preparation for the war, from the standpoint of supplies, is in excellent shape, we would like to urge that the civil hospitals do their part toward simplifying the situation by getting in the orders for the supplies that they are going to need in the next few months at least, so that the supply houses and manufacturers can take these orders into account. Those hospitals that do this may feel assured that their wants are going to be taken care of and those that fail to do so are likely to be greatly embarrassed.

While the above-mentioned features of preparedness have been under way, the hospitals of the country have been mobilized so that without doubt our hospital world is to give a good account of itself in its part of the conduct of the war. As a part of the great centralized speeding up of preparations for the war, it was early arranged that the American Red Cross was to be charged with the hospital activities, and under the direction of Col. Jefferson R. Kean, M. C., U. S. Army, a vast number of hospital units have been created in all parts of the country. Some of these units have been on a basis of the regulation base hospital consisting of 196 in the personnel, 25 of whom are physicians, surgeons, and specialists. As this editorial is being written six of these units have been called for to go to the front in France for immediate service, and by the time this number of THE MODERN HOSPITAL is in the hands of its subscribers all of these units will probably have landed on the western battlefront and will be at work.

Smaller units have also been created, some of them made up of groups of physicians only, these groups to meet the requirement of the war department for the services of approximately 5,000 medical men on the various battlefronts of Europe; all these physicians are being sent over as rapidly as transportation and their training will permit.

The medical profession has responded splendidly to the call for military service; while the figures are changing daily it is quite certain that already more than ten thousand medical men have applied for commissions in the Medical Officers' Reserve Corps and are being commissioned as rapidly as the congested Washington bureaus can make out commissions. Quietly and without any ostentation these medical men are receiving training, some of them in lecture courses given in the evening by officers from the regular medical service of the army, and some of them by study of the army medical manual among themselves. A good many have already been called into active service, some for the examination of recruits, many for the examination of medical men candidates for commissions in the service, and quite a number have been sent out to army posts at various parts of the country in order to relieve medical men from the regular service who are otherwise needed.

Taking the situation as a whole, it may be safely said that when the President shows up with his army of from one million to two millions of men he will find that the producers of hospital supplies have done their part to equip this vast force, and that the medical profession has done its part to provide professional service.

A Special Number for the Small Hospital

The Occupational Therapy Number this month is one of a series of special issues, each devoted principally to some one phase or department of institutional activity. For instance, one number is to take up the hospital as a public health center; another is to be devoted to tuberculosis sanatoriums; and still another will contain much interesting material on the institutional care of the epileptic and feeble-minded. The subject of one early issue is to be the needs and interests of the small hospital.

As our readers know, this journal has always taken a very special and lively interest in the problems of the small hospital. Most of our issues are "small hospital numbers" in some degree. We want, however, to have a field day for the small hospital, and to this end we ask for the cooperation of our readers who are in small institutions—private hospitals, community hospitals, small municipal or county hospitals, or small hospitals of any other class. Please let us hear from you.

What have you done over which you have reason to feel well satisfied? Some of you have accomplished a big thing in securing a hospital for your community; others may have an interesting story to tell in connection with your methods of financing; others, again, can tell of ingenious ways used to adapt an old building to hospital uses. What especially good and novel features are embodied in your building plans? What are you doing to create an interest in your hospital among the community? How do you meet the nursing problem? What about the question of household help? What is the best way of arranging the program of work and distributing duties? What have been your most successful economies? Write as much or as little as you like—from fif-

teen words to fifteen hundred—on any of these subjects or any other that seems to you interesting and worth while. Or, if you haven't time to write for publication, won't you let us know some of your troubles and problems that you would like solved? Then let us see if we can't find someone who has solved them.

Some of you may be too devoted to your duties to take time to write. Let us tell you confidentially that such devotion is misplaced. Get far enough away from your work to see it with an outsider's eye, write about the most instructive and interesting feature that you find in it, and see if you don't come back to it with a broadened point of view and renewed vigor that well repays you for your little excursion. Incidentally, we could tell (but we must not, even in this little private confidential chat) of superintendents whose writing for THE MODERN HOSPITAL has proved the open door to larger opportunities and broader fields of success. A word to the wise—let us hear from you!

Special Features for July

Among the features of particular interest next month will be an article on the new Denver Children's Hospital, an article on the Henry W. Putnam Memorial Hospital, Bennington, Vt., and one on the James J. Gray Clinic, Atlanta, Ga. A particularly timely paper is one by Miss Catherine A. McGrath, chief surgical supervisor in Grace Hospital, Detroit, on economical methods of cutting surgical gauze for dressings and bandages. The war makes these methods of special interest, both because of the increased need for economy, and because a larger number of inexperienced workers are sure to have to prepare surgical dressings.

The July issue will be of particular interest to executives of institutions for the feeble-minded and epileptic. It will contain articles by Dr. W. T. Shanahan, superintendent of Craig Colony, Sonyea, N. Y.; Dr. J. N. Murdoch, superintendent of the State Institution for Feeble-Minded of Western Pennsylvania, Polk, Pa.; Dr. W. J. G. Dawson, superintendent of the Sonoma State Home for Feeble-Minded and Epileptics, Eldridge, Cal.; Dr. Everett Flood, superintendent of Monson State Hospital, Palmer, Mass.; and Dr. R. P. C. Wilson, superintendent of the Missouri State Colony for Feeble-Minded and Epileptic at Marshall; also articles on the industrial colonies for the feeble-minded at Rome, N. Y., and the industrial training at the Menantico and Burlington County colonies in New Jersey.

Dr. Hornsby's important series of articles on the standardization of hospitals will be continued, as will Mr. Street's series on foods. Other regular features will appear as usual.

Standardization Articles Postponed—Other Last-Minute Notations

Unfortunately, just as we are beginning our most interesting series of articles on standardization, the war crisis interferes. As president of the Board of Medical Examiners, Central Department of the Army, Dr. Hornsby has had to devote every moment of his time to active service in the examination of medical officers to go to the front. Just as soon as conditions permit, the series of articles on standardization, on which so much work has already been done, will be continued.

A number of excellent contributions on occupational therapy and occupations for the handicapped have been received too late for use in this issue. Several phases of the subject, accordingly, will be taken up later. Next month, for instance, we shall publish something on the industrial training of the feeble-minded. Limitations of space have rendered it necessary also to defer publication of several articles on occupations for the blind.

The Occupational Therapy Number

It is with no little satisfaction that we present this month a symposium of articles by men and women prominent in working out the problems of occupational therapy and occupations for the handicapped. This is the first time, so far as we are aware, that the subject has received such prominence in the pages of any publication. The formation of the National Society for the Promotion of Occupational Therapy, mentioned in the May issue (p. 356), and the publication of the Occupational Therapy Number of THE MODERN HOSPITAL seem to constitute recognition that the movement has reached such a stage that it can no longer be ignored in the reckoning of therapeutic advance.

As Dr. Dunton shows in his paper on the history of occupational therapy, published in this issue, it is not a novel idea that work—occupation for the hand and mind—may be beneficial to the sick. It has been said that "a man to be happy must have something to work for, something to hope for, and something to love." Dr. Mary Lawson Neff has pointed out that the unoccupied institutional patient has none of these; he "is suddenly and effectively cut off from the motives that actually make life." On some conditions, such as insanity, this abnormal environment may so react as to intensify the abnormal

condition. Certain other conditions, such as tuberculosis, may be alleviated or cured, yet, in the process, the patient may be so "institutionalized" as to be totally unfitted for taking up normal life again. Our problem, therefore, has two phases: One is to direct the patient's activities so that the occupation may help to cure his condition, or, at least, so that idleness may not intensify it. The other is to restore him to normal life as a normal unit of society, or as near that as may be. The second half of the problem has assumed large proportions with the increasing complexity of our industrial life, and the world crisis through which we are passing has given it a gravity and significance which can scarcely be overemphasized.

In the old days, when men and women plied their respective crafts by their own firesides, the swift, the strong, the skillful might do much, but the weak and the infirm were not thereby debarred from doing their little. The man who could make two pairs of shoes while another man was making one might earn twice as much as his less fortunate brother craftsman, yet the latter was not thereby put out of business; he could earn just as much as his skill and strength permitted. We have changed all that. Modern industrialism, like modern warfare, wants only those who can "stand the gaff," keep step in the line of march, and ask for no cosseting. Those who cannot meet these requirements are tossed on the industrial scrapheap as total dependents.

At least, until lately, such was the fate of those who, even though still able to work, could not meet modern industrial conditions. War, however, is teaching the nations of the world to starve their scrapheaps. In time of peace, we could ignore the appalling waste involved in the enforced idleness of the handicapped; but now waste means national ruin. When practically all hale and able-bodied men are wanted for military service, and, besides women, only the aged, the infirm, and the broken are left for the tasks of civil life, the use of handicapped workers and the careful adjustment to them of their tasks becomes a vital necessity. Europe has found and America is going to find that the employment of the handicapped is no mere fad or charitable whim, but a measure of self-preservation, dictated by the sternest and most gigantic urgency.

This issue, therefore, is dedicated to one of the greatest problems of modern times, and one which will not be neglected in future issues of THE MODERN HOSPITAL. What has been achieved as yet is scarcely more than a beginning, yet it is something that a beginning has been made.

M. K. CHAPIN.

Preparedness and Child Labor

We publish on another page an abstract of an article in the *Child Labor Bulletin* showing the encroachments of child labor on the educational opportunities of children in rural Kentucky. We believe that now, when national preparedness is the order of the day, is a most opportune time to call attention to the danger exemplified in these Kentucky conditions. What has child labor to do with national preparedness? Everything. There is no subject so vital to a sound program of national preparedness as the conservation of the future forces of the nation stored up in its children. England, we are told, is already wishing that she had not used her children so recklessly at the beginning of the war. America, unless she takes heed of England's experience, may find that she has been draining herself of her lifeblood by the employment of children to meet the need for more war-time workers. There are many very good arguments in favor of the movement to put children to work on farms and in gardens; but we must not lose sight of the vital necessities of the future while we are meeting a temporary national emergency. The National Child Labor Committee offers a plan, briefly described on another page of this issue, for organizing children to aid in the production of foodstuffs, and at the same time protecting them against overwork and general neglect. The plan was drawn up after conference with educational and agricultural authorities, and, it is to be hoped, will receive serious and careful consideration wherever the increased employment of children is under consideration. Copies of a leaflet explaining the plan may be obtained from the National Child Labor Committee, 105 East Twenty-second Street, New York City.

We physicians are prone to scoff at the habit of taking a drug for a symptom like headache, without looking deeper to find the underlying disorder of which this headache is a symptom. We point out very truly that only by finding and removing the cause of this headache—an eye-strain, perhaps, or a stomach trouble—can its recurrence be prevented and other disorders nipped in the bud. This is as it should be, but we need to carry the same habit further. Why should we not push on, and find out why this patient has the stomach trouble? The headache is only a symptom of stomach trouble, we say. Yes, but the stomach trouble itself may be only a symptom of chronic worry, and the worry a symptom of deficient income. The patient's expenses turn out to be a trifle larger than his wages, and one of the many bad results of this fact is the worry that causes the stomach trouble, which in turn causes the headache.—Richard C. Cabot, "Social Service and the Art of Healing."

It doesn't take a very clever person to fool a bright health officer—but it takes an artist to fool nature or deceive a Klebs-Loeffler bacillus.—Illinois Health News.

VOCATIONAL TRAINING FOR DISABLED CANADIAN SOLDIERS

Work of Canadian Military Hospitals Commission—Reeducation of Crippled Soldiers for New Vocations

THE MODERN HOSPITAL has been fortunate enough to secure for publication in the Occupational Therapy Number several of the papers read at the recent Consolation House Conference which resulted in the organization of the National Society for the Promotion of Occupational Therapy. On other pages will be found the papers of Dr. W. R. Dunton on "The History of Occupational Therapy," of Mr. G. E. Barton on "The Inoculation of the Bacillus of Work," and of Miss Susan C. Johnson on "Occupational Therapy in New York City Institutions." Mr. T. B. Kidner, secretary of the Canadian Military Hospitals Commission, gave at the same meeting an interesting account of the work of the commission, which was formed to care for disabled members of the Canadian expeditionary force. Mr. Kidner's address was not given from manuscript, but he has been kind enough to prepare the following summary for THE MODERN HOSPITAL.

Early in the war, recognizing that the military authorities of the Dominion were more than fully occupied with the business of training, equipping, and dispatching troops overseas, the Canadian Government appointed a commission of prominent men of affairs to provide convalescent hospitals, vocational training, and employment for men returned from Europe, disabled from active service. The organization by which a man is received from the steamer on arrival and finally restored to civil life, was described. The various departments of the government and many public and semipublic agencies and private citizens, all cooperate under the leadership of the Hospitals Commission.

Early in 1916, the commission decided to provide occupational work for all men undergoing treatment in the various convalescent hospitals which have been established by the commission from coast to coast in Canada. The commission was of the opinion that the introduction of this work would have a threefold value. First, it would have a disciplinary value by preventing idleness and its consequent troubles; second, it would have a distinct therapeutic value; and, third, it would in many cases improve a man's earning capacity upon his return to civil life. The policy of providing this occupational training has proved most successful and a great variety of subjects are being taught, including general subjects, business courses, arts and crafts of various kinds and outdoor work, such as gardening and poultry keeping.

The problem of the reeducation for new vocations of the more seriously disabled had also been taken up vigorously. The method adopted to decide on a new vocation for a disabled man was of particular interest to the members of the convention. A careful personal survey is made of each man's case and involves a record of his educational and industrial history, his habits and tastes, and his own desires for the future. A small board of three persons, known as a Disabled Soldiers' Training Board, is appointed in each of the centers where disabled men are being treated. This board consists of a medical man, a vocational counsellor and a layman chosen to represent the local unofficial viewpoint. If the recommendations of this board are accepted, the disabled man enters upon a course of training at the government expense. During the period of training and for one month after it has been completed, the man and his dependents are maintained by the government.

Some special problems have arisen, such as the treatment of soldiers suffering from tuberculosis, of whom there are at present over five hundred being treated in Canada. Occupational work has been introduced in several of the sanatoriums and is proving very successful. Another serious problem was that of the men suffering from shell shock, for whom special preparation had been made, although the question of the proper treatment of shell-shock cases was a most difficult one.

EQUIPMENT OF GERMAN HOSPITAL SHIPS

Many Are Converted Merchant Vessels—Wards Provide Ample Air Space—Facilities for Operating

The following description of German hospital ships appears in a recent number of *The Hospital*, London:

German hospital ships, on account of their different spheres of action, have to be divided into two classes—the auxiliary hospital ships, and the hospital ships proper. For auxiliary hospital ships small steamers have been utilized, which are easily managed and can be used not only in receiving sick from the ships, but also for either receipt or discharge of patients directly from or to docks. Suitable heating, ventilating, and lighting facilities are a foregone conclusion. The personnel and equipment of these ships are somewhat meager—two medical officers—since the stay of patients is only short, limited to the time necessary for transfer to permanent quarters. Bed accommodation on these ships is provided for from 50 to 100 persons.

The hospital ships proper are vessels of from 5,000 to 6,000 tons displacement. They are good sea-boats, have suitable speed to follow a fleet, and are equipped with all the hygienic comforts of the up-to-date passenger ship. The different navies satisfy their need for hospital ships by the equipment, for that purpose, of merchant vessels. The German navy, in accordance with previously laid-down plans, converted merchant ships to the number of seven into auxiliary hospital ships, and six, with an average bed capacity of 300 patients, into hospital ships. These ships, converted into hospital ships in a short space of days, show in their interior already their changed mission. In accordance with the provisions of the second Hague Conference, they are painted white, with a 1.5 meter wide green stripe in the case of government ships, and a red stripe in the case of ships fitted out by benevolent societies or private individuals. Besides the national flag, they also carry the Geneva flag.

The main feature of these ships are the wards, which generally occupy the two upper decks, providing not less than 15 cubic meters of air space for each patient. The beds are either stationary, arranged with due allowance for the ship's motion, or swinging cots fastened to iron stanchions. Smaller wards for the accommodation of infectious diseases, mental and critical cases, and sick officers are also provided. Among other important features are the light and well-ventilated operating rooms, with anesthetizing rooms, dressing rooms, etc., usually located on the upper deck. An x-ray room is an absolute necessity. The dental care unavoidable in cases of injuries to the jaw necessitates a dental room with complete equipment for the treatment of such cases. The medical cases are usually in wards not adjacent to those for surgical, skin, eye, and ear cases, but are located next to the dispensary, and connect with a room for electrical and hydrotherapeutical treatments. It is hardly necessary to mention that each ward has its own bathroom facilities. The

different lavatories are located next to the wards occupied by the infectious diseases, which latter also requires a disinfecting plant. Other necessary adjuncts of hospital ships are ample kitchen space, cold storage facilities, laundry, repair shop for instruments, sewing-room, and storage room for medical and surgical supplies. A library for the crew and for professional reference is also provided.

Of great importance on a hospital ship is an easily operated arrangement for the transfer of sick either from or to the ship, and for this purpose a double swinging cot is used, hung from a boom. On the ship itself, elevators take care of this problem. A life-saving apparatus is also included in the equipment. The personnel of the ship consists usually of the senior medical officer and three juniors, a pharmacist, and a dentist, also hospital orderlies and Red Cross nurses.

OCCUPATIONAL THERAPY IN THE GENERAL HOSPITAL

Experiment Successfully Tried in Three Chicago Hospitals, Michael Reese, Presbyterian, and Cook County Hospitals

The value of occupational training in certain special classes of institutions is obvious. In custodial institutions like homes for the feeble-minded and epileptic the vocational training of the inmates may be of great economic value to the institution itself. Occupational training given in special hospitals for patients with diseases imposing a definite handicap, like tuberculosis and nervous and mental diseases, may just as obviously do much for the patients therapeutically and even economically; the length of such patients' stay in the hospital gives opportunity for more thorough instruction than would ordinarily be possible in a general hospital.

It requires perhaps more discernment to see the need for occupations in the wards of the general hospital. There are many factors which make the problem a difficult one—the small amount of space allotted to each patient, the comparatively short average hospital sojourn per patient, the fact that the nurses usually lack time and training to cooperate. And yet the aggregate waste of human energy and courage through enforced idleness may be just as great in the general as in the special hospital.

The experiment of introducing work into the wards of the general hospital is therefore of considerable interest. Michael Reese Hospital, Chicago, last year initiated such work under the direction of Miss Susan E. Tracy, who, in addition to being an experienced nurse and former training-school superintendent, has a ten years' record as a missionary in occupational therapy, and is the author of "Studies in Invalid Occupation," "Rake Knitting and Its Special Adaptation to Invalid Workers" (reviewed on another page, this issue), etc. The results have been described by Miss Laura Kraemer, a nurse who was closely connected with the work, in the *Associated Bulletin* as follows:

"Those patients who were able were taught to make baskets, to do simple leather work, such as the making of bags, purses and soft slippers, to rake knit, and to weave by hand. The interest grew surprisingly. The doctors began to prescribe certain occupations. Surgical cases would often work on their 'stunt' up to the very moment of going to the operating room, thus passing quickly and pleasantly the usually nerve-trying time. One active young Texan whose leg was badly cut and infected, had been put in a semiprivate room and so overlooked by the occupation teacher. One day he sent a nurse out to ask that woman to bring him some work, any kind. From that day on during the remaining two months of his stay his interest never flagged, and when he left he said: 'It was that work that helped me through.' One-armed patients would devise the most ingenious ways of holding their tools, often successfully competing with two-armed workers. One young woman being treated for gastric disorders was apparently unable to retain any food. An attractive and soothing occupation was prescribed for her, which so quieted her mind and nerves that a few days later she told the nurse she never even thought whether she was nauseated or not after eating her lunch that day. Young girls suffering with chorea were given such work as stuffing cloth dolls and animals in which the involuntary muscular movements were somewhat controlled, with apparently good results."

Appreciation on the part of a member of the Woman's Auxiliary Board of Presbyterian Hospital of the far-reaching value of the work thus demonstrated resulted in a three months' course being offered by her to the institution and, later, to a lengthened period being carried by the Woman's Auxiliary Board with the hope of giving it a permanent place in the institution. Miss Tracy gives her mornings to the wards for bedside teaching and her afternoons to the training of pupil nurses.

The work in the wards is full of interest. The aim in the first place is therapeutic—to aid in restoring the patient to his normal condition, or at least in palliating his

Fig. 1. Rag dolls dressed in the English civil costumes of various historical periods. The dolls and costumes were made in Miss Tracy's classes at the Presbyterian Hospital.

sufferings and giving him a normal outlook on life—in the second place it is educational—to teach him how to use such powers as he has left—and in the third place only, economic. Some of the articles made are both useful and salable, as the attractive caps, jackets, and blankets, knit by the patients on wooden rakes; others, like the articles molded out of a plastic mass of wet blotting paper, are useful chiefly for the effect of the work on the patients. When intended for patients with contagious diseases, for instance, occupation of the latter class can be chosen because the product may be destroyed without compunction.

The radiant pleasure and pride of the patients in their work is most striking. The dainty layette made by an expectant mother, the box of toys made by a man patient for his little girl at home, the hat fashioned by a woman patient out of scraps of braid and silk, and up to the minute with its trimming of appliqué fruit (also the patient's work), the leather purse and baskets made by a little boy, the afghan knitted by a little girl—all are exhibited with a beaming satisfaction that indicates the deep significance of these things. They are not merely pretty or useful articles—not merely even tokens of skill—they are trophies of conquest over hours of fatigue, depression, and discour-

agement; they stand for renewed self-respect and self-reliance.

Two especially interesting cases show how much an apparently slight accomplishment may mean to a heavily handicapped person. One is the case of a Greek, shot in the neck, with a resulting complete paralysis of the right hand and arm and of the left hand; the patient still has some control over the left arm. Dr. Peter Bassoe, the patient's attending physician, gladly granted Miss Tracy permission to see if she could do anything for this man. After considerable study—for what could be expected of a man with the use of neither hand and only one arm?—she hit upon the plan of equipping the patient with a polishing pad, fastened into his right palm by a band buttoning around the hand. With this apparatus he is able to polish articles fastened on a special bed table in front of him, using his inert hand simply as a tool driven by his arm, somewhat as a carpenter uses a plane. It is hoped that he may thus be enabled at least to contribute to his own support when he is discharged. He at any rate has

Fig. 2. The garden scene from "The Merchant of Venice." These characters, also, are represented by rag dolls made and dressed in Miss Tracy's classes. Spools, scraps of wrapping paper and tissue paper, etc., are cleverly utilized in the scenery, and the costumes are likewise made of such materials as chance brought to hand.

the satisfaction of knowing that his will can direct the use of a part of his body. This man had not been able to put anything into his own mouth for four months, but, with the aid of a second leather palm which holds a fork or spoon, he can now feed himself to some extent.

Another interesting case is that of a woman affected with such violent and uncontrollable tremors of the hands and arms that it is impossible for her even to feed herself. An occupation for this patient was as hard to find as one for the paralyzed man. She has at least learned to stuff toy animals quite expertly.

Some of these occupations have been criticised as trifling and elementary. In many cases, however, as Miss Tracy says, the difficulty is to find work that is elementary enough. The tangible product may seem trivial, but the fostering and rebuilding of character, which is so apt to suffer under idleness and illness, is not a trivial achievement.

A most interesting exhibition of the work of patients and nurses in the Presbyterian Hospital was held May 1 to 5. One of the most instructive features was the astonishingly effective use made of homely, everyday materials like grocers' wrapping paper, spools, twine, scraps of cloth, corrugated pasteboard, and tissue paper. A group of dolls dressed in the historical costumes of various periods exemplified the principle of using the material at hand. Dolls as well as costumes were home-made; the wigs were improvised out of appropriately colored yarn; ermine bands were represented by white cotton flannel with black stitching, etc. A series of groups of similar home-made dolls dressed in costumes represented scenes from the "Merchant of Venice." Here marble terraces were represented by grocers' marbled paper; balustrades were made of spools, etc. Surprisingly effective reproductions of well-known mural decorations, such as Alexander's series on "The Making of the Book," in the Congressional Library at Washington, were made by the use of layers of different plain colored papers applied as a kind of mosaic. One pupil had devised a representation of the solar system out of colored balls. Evidently, one thing learned was that one does not have to spend money to have the means to express oneself artistically or graphically; the means lie close at hand, provided one has the ingenuity or training to use them.

Another Chicago general hospital in which occupational therapy has been introduced is Cook County Hospital. Through the efforts of Miss Prentiss, head of social service work for that institution, and with the cooperation of the Illinois Society for Mental Hygiene, occupational therapy was introduced into the wards of the orthopedic department. The work, which is dependent on private subscription, has been temporarily suspended for lack of funds, but it is hoped that it will soon be possible to renew it.

What might be called out-patient occupational work, the outgrowth of the classes in Michael Reese Hospital, has also been described by Miss Kraemer in the same number of the *Associated Bulletin* previously quoted:

"The interest grew until the patients would watch eagerly for the hour when the worker appeared, and some of them, after leaving the hospital, would come back to ask for further instruction in these occupations or to learn where to obtain materials. These were mostly one-armed men who had learned some work by which they could make a temporary living, or cardiac cases who found their former trade too hard for them and wished to try the new occupation learned at the hospital. The board of directors felt that this was a very important need, but scarcely one that the hospital could meet; also that such work, to be profitable for these people, should be carried on under supervision and a market supplied for their wares. The solution seemed to be a shop where they could work a few hours every day under supervision until they were again able to take up their former employment, if that time should come, or make a living in the new.

"In November, 1916, a small industrial shop was opened in the basement of the Jewish Aid Building, 1800 Selden Street, under the direction of the Jewish Charities. The work was begun on a very small scale, accommodating not more than fourteen workers. Cardiac convalescents predominated, with neurotic cases next. Rug weaving, cloth weaving, basket making and similar hand work is taught. Although still in a very crude and experimental stage, the work is proving itself worth while. The patients are happy while at work. One man, who has done no work for several years, expressed it thus: 'I no sleep all night, much pain, but when I come here I cannot say in English, but I have what the Germans call "Mut."'

"The rug weaving has been self-supporting from the start, because of the ready market. The other work, being cruder, is not in such demand, but undoubtedly will be in time. . . . Whatever the economic outcome of this small

beginning—and one must believe that great things will grow from it—we, who are working with these people, know that they are gaining much by this exercise of body, mind, and will; that they are overcoming the enervating habit of self-pity and forming the habit of self-respect."

A WAR MEASURE

Plan Offered by National Child Labor Committee to Employ Children in Agriculture Under Supervision and Without Burdening Farmers

"To organize the children of America to serve in war time in the production of foodstuffs under supervision of educational directors and at the same time safeguard the children against overwork and general neglect," the National Child Labor Committee has sent a letter and leaflet outlining a workable plan to every state, county, and city school superintendent, the secretaries of agriculture and labor, the commissioner of education, the chief of the Children's Bureau, members of the Council for National Defense, and others interested. The plan calls for the cooperation of teachers, scout masters, and playground directors, and was drawn up after conferences with the directors of the Playground Association and Boy Scouts of America, the New York commissioner of education, the president of the New York City Board of Education, and the Agricultural Committee of the Merchants' Association. The plan divides children into two classes, those 14 years old and over, who may be hired out or sent in groups to work in farm districts, and those under 14, who would be a burden to the farmers, but may be used in their home towns under supervision. For employing the younger children, towns are advised to form a "summer agricultural faculty" composed of teachers, scout masters, and others, get the use of vacant lots and raise a small sum to have them plowed, and secure a special resolution from the local school board providing that children enrolled for this supervised agricultural work and performing it regularly may be credited with it in lieu of regular school attendance from June 1 to October 1. But allow no general exemption," says the leaflet, "that will turn children out of school without providing both occupation and supervision." The children thus enrolled are then to be set to work to raise foodstuffs appropriate to the soil and location under direction of the "summer agricultural faculty," who will "appreciate the limits of a child's strength and will not allow him to be overworked." For older children, it is suggested that since "to send any children to farms without knowing the actual need for them, or without regulation, would be wasteful and a hindrance to the farmers, who do not want a horde of inexperienced laborers on their hands," each state should create a committee of school officials to confer with the state agricultural department and farmers' organizations, meet whatever need there is of child labor and draft regulations for it. The suggested regulations are that only children 14 and over be permitted to work for farmers other than their own parents, since, as the National Child Labor Committee states, the farmers themselves repeatedly say that children younger than those 14 or 15 years old are no use to them; that such children be excused from school for farm work between June 1 and October 1; that no children so excused be permitted to work more than eight hours a day or six days a week; that children shall be so excused only on the issuance of a special permit by the state committee of school officials or persons authorized by them, stating that the child has been examined by a physician and found physically fit for work, and is to be employed on a farm known to be a suitable place. The committee of school officials is to be responsible for the enforcement of such regulations and for the supervision of the transportation, housing and feeding of the children. As to housing, it is suggested that the children live in camps, under supervision of scout masters, playground directors, or school officers, from which they may be sent in gangs each day to the farms or fields where they are needed, and to which they may be returned at night, thus keeping their living conditions under control, and relieving the farmers of the responsibility of housing them. In the letter accompanying the leaflet it is stated that "the policy of recruiting agricultural and factory workers from school children 11 to 13 years old, adopted in Great Britain at the beginning of the war, already stands revealed as short-sighted, and standards too recklessly set aside are now being restored. We believe the plan outlined will not only utilize properly the human resources of the country and enable the children to do their bit, but will regulate their work for the best interests of themselves and their employers, and at the same time help supply the country with food. It can be carried out upon sufficient local initiative and will bear abundant fruit without any hazard to the future of the Republic." Copies of the leaflet may be obtained from the National Child Labor Committee, 105 East Twenty-second Street, New York City.

CHILD LABOR IN KENTUCKY*

Education Hindered by Demand for Child Labor on Farms —Poverty and Ignorance Causes of Parental Neglect of Children's Education

The child worker on the farm has never been considered an important element in the child labor problem. In a recent number of the *Child Labor Bulletin*, Edward N. Clopper shows the error of this view. The Federal census of 1910 credits Kentucky with 64,692 child workers from 10 to 15 years old. Eighty-two percent of these—over fifty thousand—are reported as agricultural laborers. Mr.

Fig. 1. A 13-year-old Kentucky boy who works for a farmer for $1.25 a week and his board. His working day is from 4 a. m. to 6. p. m.

Clopper's report does not undertake to deal with the effects of the tasks on the physical condition of the children; he discusses only the interference of farm work with the attendance of children at rural schools.

The laws of Kentucky restrict child labor on farms only indirectly. One law requires that children between 7 and

*The accompanying illustrations are shown by courtesy of the National Child Labor Committee.

12 years of age living in the rural districts shall attend school regularly throughout the common school term. Another forbids the employment of children under 14 years of age at any kind of work during the time while the public schools are in session. Both of these laws are said to be quite generally disregarded, however. Cases reported indicate that it is customary to keep farm children out to help their parents during the crop season, or even to hire them out, like the 13-year-old farm hand shown in Fig. 1, whose working day is fourteen hours long (how much time is allowed for meals is not stated), or at least from 4 a. m. to 6 p. m. For this he receives the munificent sum of $1.25 a week and his board. This boy is in the fourth grade.

The causes of this waste of childhood's opportunities, it would appear, are partly economic and partly social. In some cases it is actual poverty and in others merely ignorance and an unawakened conscience on the part of the parents that keeps children at work when they should be in school. On the one hand, tenant farmers and "croppers," being constantly in financial subjection to their landlords and local storekeepers, may with some justification plead want and necessity as the reasons for using their children's labor. On the other hand, instances are cited of well-to-do farmers whose children are used as farm "hands" and consequently receive little or no schooling worthy the name. Tobacco culture takes a heavy toll from Kentucky children. One father frankly said, "That's the advantage of the tobacco crop—every child is a hand."

Fig. 2. Boys "housing" tobacco in a barn in Kentucky.

Fig. 3. Kentucky boys 10 and 12 years old gathering rye in school hours.

"Don't worry! To worry about the past is to dig up a grave; let the corpse lie. To worry about the future is to dig your own grave; let the undertaker attend to that. The *present* is the servant of your Will."—Haddock.

ST. ANTHONY MATS

An Indigenous Handicraft Developed Into a Worth-While Industry—Designs Showing Characteristic Northern Scenes

Dr. Wilfred T. Grenfell, so well known for his medical missionary work on the Labrador coast, tells, in a recent number of *Among the Deep-Sea Fishers*, the story of an interesting industry which he and Mrs. Grenfell have fostered into prosperous growth among the wives and daughters of the Labrador fishermen. The women, Dr. Grenfell says, have by far the worst of life in the frozen North, confined as they are to their houses far more than are the men. These women are accustomed from earliest childhood to make hooked rugs or mats during the winter. The mats last indefinitely, are small enough to be easily taken up and washed, and enable the thrifty to use the last end of the last garment. The work itself is well adapted to the life of the coast women. The fishermen themselves make the apparatus for their wives or daughters, so it costs nothing; the frame takes up little room, as it rests against the wall when not in use; and the work is of such a nature that the worker can employ every little odd minute to good purpose. The color schemes, however, were generally unattractive and the patterns uninteresting, so that the product was scarcely salable, no matter how good the workmanship.

Dr. and Mrs. Grenfell formed the idea of standardizing patterns, materials, and sizes of mats so as to make them salable. They have evolved about sixteen quaint and attractive patterns, representing characteristic local scenes, two of which are reproduced here by courtesy of *Among the Deep-Sea Fishers*. The material used is all new and clean, and the workmanship has to conform to standard. Mrs. Grenfell herself prepares the work, cutting and hemming the burlap, inking in the design, tearing the cloth to be hooked in, and supplying, with each mat given out to be hooked, a small colored design showing in miniature what the finished product should look like. The women

enjoy seeing the scenes of their everyday life grow under their fingers, and the husbands take pride in the development of a local and domestic art. Still more important is the opportunity given to needy families of earning ready money.

A mat 25 by 41 inches sells for $5. Of this price the worker receives $1.50; the remaining $3.50 covers the cost of material and the losses due to wastage by unskillful workers. Mrs. Grenfell has kept consistently in view two cardinal points: one, that all women who need the work shall have a chance to get it; and the other, that the mats shall be sold for as low a price as will insure against a loss. One New York shop has put the mats on sale, but orders direct from consumers are desired. Orders and gifts of material (new wool pieces in white, blue, dark green, or black) may be addressed to the St. Anthony Mat Industry, St. Anthony, Newfoundland.

Fig. 1. A St. Anthony mat, showing a characteristic design.

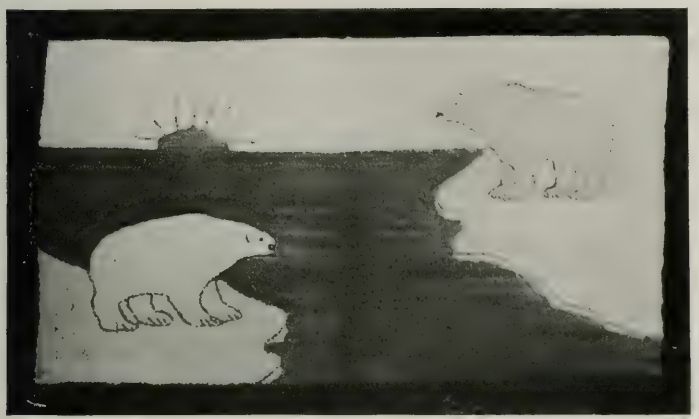

Fig. 2. An even more arctic scene represented on another St. Anthony mat.

This industry has even been copied in England, where the war has brought a necessity for finding employment for wounded soldiers. Lady Davidson, the wife of the governor of Newfoundland, remembering some St. Anthony mats which she had once bought, suggested the introduction of the industry into a military hospital there. The work seems to be well suited to handicapped workers.

Psychology for Pupil Nurses

New York City Hospital, Blackwell's Island, last year introduced experimentally into its curriculum a short course in psychology, says the *American Journal of Nursing*. This course was given in the latter part of the junior year, after the pupils had been on the wards a few months and had thus accumulated a background of experience in dealing with patients and an appreciation of the problems of hospital work. The course was carefully adapted to meet the needs of nurses, the subject-matter being carefully selected and presented in a very simple and concrete way, and the pupils being invited to bring to class all kinds of problems on which psychology might throw light.

The results are said to be very interesting. The pupils have requested that the course be continued and made a required course in future. There are many evidences that the psychological work has awakened in the pupil nurses a more sympathetic, tolerant, and intelligent attitude toward their patients. These pupils, moreover, "have shown a keener appreciation of the psychological elements in the commonest nursing procedures, such as the setting of a tray, the training of a baby in orderly habits, the administration of difficult or disagreeable treatments, and they have also shown that they have a much better basis for understanding pathological mental states, which in some degree complicate all kinds of disease."

It is true, continues the *American Journal of Nursing*, that many of the principles of psychology are nothing else than the common-sense principles of daily life, sifted, explained, and organized. Yet, if practical persons like traveling salesmen, advertising men, and managers of factories find it profitable to study psychology as a means to greater efficiency, can nurses afford to be without this knowledge? "No one has a more difficult psychological problem to meet than the nurse, working as she does constantly with all kinds and varieties of people, many of them hypersensitive and unreasonable, having to adjust herself to the most widely varying conditions, having very often the added responsibility of leading and guiding weaker minds into more wholesome and rational lines of thought and conduct."

Charles Kingsley once said: "If you want to be miserable, think about yourself, about what you want, what you like, what respect people ought to pay you, and what people think of you."

DEPARTMENT OF NURSING

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THE 1917 CONVENTION OF THE THREE NURSING ORGANIZATIONS

Seriousness of World Crisis Emphasizes Earnestness of Purpose—One of the Largest and Most Successful Meetings Held by Nurses in This Country

The annual convention of the three national nursing organizations, recently held in Philadelphia, drew together, despite the world crisis, one of the largest, if not the largest, assemblies that has been known in the history of the profession in this country. The proceedings were characterized throughout by an earnestness of purpose and a seriousness of attitude easily attributable to the entrance of this country into the world conflict and the acute realization of the members by virtue of their profession of what such a step involved. The seriousness of the situation was intensified by the recalling to their posts shortly after the convention opened of several of the most prominent superintendents of nurses, in order that they might prepare their units for immediate service.

At the opening session on Thursday evening, April 26th, over which the president of the American Nurses' Association presided, a most gracious welcome was extended to the organizations by Dr. Wilmer Krusen, director of the Department of Public Health and Charities of Philadelphia. Brief addresses were given by the three presidents, who were followed by Mr. Thomas Mott Osborne, who spoke for nearly an hour to the profoundly interested audience that filled to overflowing the ballroom of the Bellevue-Stratford Hotel.

The Friday evening session, held at the Academy of Music, was devoted to health insurance, and was presided over by Dr. Charles Hatfield, director of the Henry Phipps Institute. The discussion was opened by Miss Mary Beard, president of the National Organization for Public Health Nursing, and director of the Boston Instructive District Nursing Association. Mr. Miles Dawson of New York spoke to his subject, "What Will Health Insurance Do for American Citizens?" in his usually clear and convincing way. Miss Pauline Newman of the International Garment Workers' Union commanded the deep and sympathetic attention of the house by the originality of her presentation and her strong personality when she spoke of "What Will It Mean to the Insured?" Miss Newman was followed by Dr. I. M. Rubinow, the executive secretary of the American Medical Association, who forcefully presented his subject, "Why Doctors and Nurses Should Understand and Prepare Themselves for Their Responsibilities Under Such an [Health Insurance] Act."

On Monday evening the Academy of Music, which seats three thousand, was completely filled for the Red Cross meeting, presided over by Miss Jane Delano, director of the Red Cross Nursing Service. Miss Noyes, director, Bureau of Nursing Service, American Red Cross, read an able paper on "Volunteer Service for Women in Time of War." Dr. Warren P. Wilson spoke most eloquently of the significance of rural nursing in the southern mountains, and Mr. Eliot Wadsworth's address on "The Work of the Red Cross in the Event of War" was listened to with an interest intensified by the present situation.

The Tuesday (last) evening session was presided over by Miss Sara Murray, educational director of the Registered Schools of Nursing in Pennsylvania. At this session some unique features were presented. The pupils of the Philadelphia General Hospital, under the direction of Miss Feamster, demonstrated the making of a Bradford frame bed with a little child as patient. The students of the Jewish Hospital gave a demonstration of cupping, the students of the Frankford Hospital the giving of a dry pack. The skill and the finished technic of these students, quite young in their schools, and their utter absence of self-consciousness, commanded the admiration of the audience. These demonstrations were followed by a most interesting demonstration of the teaching of solutions, practically and theoretically, to a group of students of the Philadelphia General Hospital, by Miss Amy Trench, instructor of nurses of the Mount Sinai Hospital, New York.

All of the sessions and round tables were splendidly attended, and the interest in the comprehensive program was very evident. So important were the topics presented and so ably were they dealt with that it is difficult to single out any for special comment. All of the papers will appear in the later issues of the *American Journal of Nursing*, the *Public Health Nurse Quarterly* and THE MODERN HOSPITAL.

The organizations were fortunate in having as presiding officers and speakers local authorities in the various subjects presented, notably: Ambrose L. Suhrie, Ph. D., of the University of Pennsylvania, who spoke on "Psychology and Its Application to Teaching and Discipline"; Dr. Edward P. Davis, professor of obstetrics, Jefferson Medical College, who spoke at the Maternity Nursing session; Dr. Samuel McClintock Hamill of Philadelphia, who presided at the Health Centers Session; Mrs. William Falconer, Sleighton Farm, Philadelphia, and Miss Helen Glenn, state supervisor of widows' pensions, Pennsylvania, who discussed the relation of the graduate nurse to the problem of social hygiene. Mr. E. J. Catell, City Statistician of Philadelphia, presided at the session dealing with the relation of clinical records to vital and morbidity statistics.

The two sections, the Private Duty section with Miss Francis Ott as chairman, and the Mental Hygiene section with Miss Elnora Thompson as chairman, not only provided interesting programs but outlined important schedules of constructive work for the coming year.

A third section was created at the request of the boards of nurse examiners. This section will have for its chairman Miss Anna C. Jamme, and will absorb the Committee on Legislation, of which Miss Jamme was also the chairman. The Committee on Legislation did conspicuous work last year, having outlined a minimum national curriculum and made important suggestions leading to a standardization of nurse training schools and the licensing of women for the profession of nursing.

The National League of Nursing Education also reported that the standard curriculum prepared by the Education Committee of this association was in the hands of

the printer and would appear shortly. This curriculum will be in the nature of the ideal rather than the minimum state curriculum prepared by the Committee on Legislation. The schedule of courses that it presents, however, some schools have already attained to or are exceeding.

An important step was the incorporation of the American Nurses' Association in the District of Columbia, the alternative under consideration should it be deemed impossible—because of the present conditions—to obtain a federal charter, a bill for which was presented to Congress last year. The reorganization of the membership will now proceed rapidly. Tennessee and Texas were reported as already organized on the new basis.

In spite of the present financial conditions, contributions of the Relief Fund were most generous, totaling well over a thousand dollars for the coming year.

The organizations are deeply indebted to Miss Clayton, chairman of the Program Committee, and her associates, and to Miss Laub of the Medico-Chirurgical Hospital, chairman of the Committee of Arrangements, for their unceasing thought and for the unusually efficient way in which the large groups of people were handled and the many sessions and round tables were arranged for.

The recreation and entertainment prepared for the visiting members was most thoughtful and generous.

A delightful trip was planned for Saturday afternoon to Valley Forge, a luncheon being served by the Maryland State Nurses' Association of Graduate Nurses, assisted by ladies from chapters of the D. A. R.

The hospitality extended by the various clubs and institutions was greatly appreciated. A daily social hour was arranged for and was presided over in turn by the Philadelphia League of Nursing Education, assisted by the members of hospital and training school boards of managers, the Women's Civic Club, the Philadelphia College Club, the Acorn Club, the New Century Club, the Philomusian Club, and the members of the College of Our Lady of the Visitation. Under the auspices of the last group a charming concert was given during the social hour by the children from the Greek Orphanage.

On Sunday special services were arranged in the churches of the various denominations.

A more detailed report will be presented by Miss Crandall of the proceedings of the National Organization for Public Health Nursing, together with the names of the officers of that organization for the coming year.

The recently elected officers of the National League of Nursing Education are as follows:

President, S. Lillian Clayton, R. N., Pennsylvania; first vice-president, Sara E. Parsons, R. N., Massachusetts; second vice-president, Grace Allison, R. N., Ohio; secretary, Effie J. Taylor, R. N., Maryland; treasurer, M. Helena McMillan, R. N., Illinois.

Board of Directors: Mary M. Riddle, R. N., Massachusetts; Anna C. Maxwell, R. N., New York; M. Adelaide Nutting, R. N., New York; Clara D. Noyes, R. N., Washington, D. C.; Louise M. Powell, R. N., Minnesota; Lauder Sutherland, R. N., Connecticut; Mrs. Ralph C. Apted, R. N., Michigan; Anna C. Jammè, R. N., California.

Officers of the American Nurses' Association: president, Annie W. Goodrich, R. N., New York; first vice-president, Adda Eldredge, New York; second vice-president, Elsie M. Lawler, R. N., Maryland; secretary, Katharine DeWitt, R. N., New York; treasurer, Mrs. C. V. Twiss, R. N., New York.

Board of Directors: Ella Phillips Crandall, R. N., New York; Mary C. Wheeler, R. N., Illinois; Helen P. Criswell, R. N., California; S. Lillian Clayton, R. N., Pennsylvania; Jane A. Delano, R. N., Washington, D. C.; Mary M. Riddle, R. N., Massachusetts.

Nursing Conditions in Java

Interesting details of nursing among the Malay population of Dutch India are quoted by the *Nursing Times* from the *Tijdschrift voor Zickenverpleging.* Great improvements have been effected by a woman doctor (Madame Stokvis-Cohen) practicing at Semarang. Her ideal is a hospital for natives run by native nurses, but progress is needed before such an ideal can be realized. Malay female nurses employed in the existing hospital were unable to read or write, many could only count up to ten; the male attendants seemed rather more capable, having enjoyed the advantage of some slight training under a Dutch doctor. At first natives refused to enter the new hospital, even for consultations, although they would consult the doctor in her own house. Prizes (of babies' baths or toys) were offered for the healthiest and best-tended babies, with excellent results. Presently patients consented to be nursed in the hospital, and found that they liked it. It was a long time before Javanese girls could be induced to train for nursing, but at last two came forward and remained. By 1914 no fewer than seventeen were in training, and a separate house was found for them.

Confinements of Javanese women are conducted on primitive methods. After delivery the patient (if she may be so termed) bathes in the river, and then, standing, is tightly bound up by friends or attendants in a bandage some six or seven yards long and about a foot wide. For the first six hours she is not allowed to sleep or even to lie down. In spite of the lack of medical attendance very few native women die in childbirth. Marriage takes place frequently at 13 years of age, and at 14 many girls are mothers. Grandmothers often bear children. When the baby is 4 days old it is given rice as well as the mother's milk, the food being pushed down its throat. Javanese children, however, thrive and look healthy; perhaps by a process of survival of the fittest.

Troubles are not neatly separated, each in its own corner. They do not heed our academic distinctions or our divisions of labor. Poverty, disease, moral shiftlessness, and spiritual torment are inextricably intermingled in the face and fortunes of a single sufferer. Not even the sufferer himself can tell what is root and what is branch among his troubles. He will wander into a hospital in search of a tonic ("something to give me strength, doctor"), although his weakness may be due to lack of food and that lack to the loss of his job. He will run to a clergyman distracted with religious doubts when the root of his trouble is insomnia. In all such cases he goes to the wrong shop and the shopman (doctor, minister, social worker) is apt to take him at his own valuation, to treat him for his stomach if he complains of that, or for his atheism if that is the burden of his remarks. Disaster often results.—Richard C. Cabot, "Social Service and the Art of Healing."

A True Dimicrat

Hospital Physician.—"Which ward do you wish to be taken to? A pay ward or a——"

Maloney.—"Iny of thim, Doc, that's safely Dimicratic."
—The Journal of the A. M. A.

BULLETIN OF THE AMERICAN HOSPITAL ASSOCIATION

Monthly Bulletin issued from the Executive Offices
Medical Arts Building, Philadelphia, Pa
WILLIAM H. WALSH, M. D., Secretary.

Official Bulletin for May

PREPAREDNESS

The response to the call of our committee on preparedness has been very gratifying. At this writing more physicians and nurses are required, but the government is discouraging the establishment of new base hospitals, at least for the present. This should not deter any large hospital, however, from perfecting its organization, nor should it prevent all the hospitals reorganizing their staffs for the purpose of liberating as many physicians as possible without unduly disorganizing the service. Hospital superintendents are urged to accumulate large supplies of dressings, splints and other emergency requirements for any possible contingency. It would also be well for hospital authorities to familiarize themselves with the regulations of the Army and Navy pertaining to the records required in all cases treated in civil hospitals. Accuracy in rendering the clinical reports of sick or injured soldiers is of the utmost importance to the country, since carelessness or inaccuracy may either prevent a worthy person getting a just pension or may enable a dishonest person to make claims that cannot be disproved.

FINANCIAL CAMPAIGN

Amongst the many functions assigned the secretary's office by the report of the committee on bureau of hospital information was that of helping hospitals to organize financial campaigns. Upon looking into the methods practiced by certain professional campaign managers, it soon became painfully evident that there was considerable room for improvement, not only in the methods adopted by some, but also in the character of some of the institutions claiming the support of the public. In some instances investigated, a campaign left the institution in a sorry plight; those whose support and everlasting good-will might have been enlisted, were disgusted with the institution and the things that were done in its name; and ofttimes many who had given loyal support for many years withdrew altogether. Otherwise honest institutions have permitted campaign managers to make claims that were known to be false; and they have also stood calmly by without protest when resort has been had to practices distinctly unethical. Hospitals of shady repute have used the campaign method to inveigle the unwilling or uninterested philanthropist into contributing, and in some instances distinctly private hospitals have raised money in a town without any thought or intention of using the funds to care for the poor for whose benefit and in whose name the money was secured. Again, campaign managers have exacted returns for their services that have been out of all proportion to the work performed or the amount actually paid in, and there are cases on record in which every cent of cash taken in was paid over to the manager, leaving the institution with a tangled mass of pledges, many of which were quite worthless.

From the foregoing, it may be gleaned that there is room for reform in the business of money-raising; it is also clear that no hospital should undertake a campaign unless the authorities are in full possession of a considerable amount of information about campaigns in general and managers in particular.

It may be stated as a general proposition that no hospital should attempt to appeal to the public for support unless that hospital is expending the funds already at hand to the best advantage. The public should also have a right to the assurance that the hospital is already performing a philanthropic function and that the money contributed will be used to further that work. There is nothing inherently wrong in the campaign idea, but unless an institution is to be more injured than helped it behooves those who are contemplating such a project to avail themselves of the privilege offered by this Association of supplying advice, assistance, and protection against the unscrupulous who often appear with a trunk full of references. Whenever possible, the secretary will personally visit any hospital considering a campaign, supply the names of managers who have consented to conform to a certain procedure, and will aid in any other way within his power.

BUREAU OF REGISTRATION

We are glad to announce that many requests have been received from all over the country for suitable candidates to fill positions, and we are beginning to feel proud of our accomplishments. The office is gradually accumulating a mass of information about hospitals, so that as a rule when applicants are referred to a hospital we can supply considerable data. In cases in which conditions are unusually bad and a new superintendent is desired, we do not hesitate to advise the prospective candidates of the undesirable situation so that the necessary precautions may be taken. Since this office requires references before registration, we feel that hospitals, too, should meet certain requirements if they want capable officials, and in at least one case we have successfully forced such an issue.

NATIONAL MEMBERSHIP CAMPAIGN

It must be evident to all that we are not doing the greatest good to the greatest number. It also cannot be denied that there has existed among some the selfish notion of a small select organization. We think the day has come for expansion, and that the time is about ripe to invite every reputable hospital worker in the United States and Canada into the fold. A conservative estimate of the number of hospital people in the United States and Canada eligible for membership in the American Hospital Association would place the figure at about 20,000, of whom at least one-fifth, or 5,000, are eligible to active membership. The income from an organization of such magnitude would amount to

Active, 5,000 at $5	$25,000
Associate, 15,000 at $2	30,000
Total	$55,000

A properly organized and well-managed campaign conducted for the purpose of acquainting everyone in America with the objects of the association would bring us, if the experience of other organizations may be used as a criterion, about one-fifth of those eligible, or a total of 12,000

new members, which, when divided into one-fifth active and four-fifths associate, would give us an income of

Active, 2,400 at $5	$12,000
Associate, 9,500 at $2	19,000
Total	$31,200

In considering this matter, it should be remembered that the advertising value of such a move would be inestimable, since our literature and the work of the association would within a very short period become known in every city, town and hamlet in the country.

This matter has not been definitely acted upon by the trustees, but in any event the proposition will come up for consideration at the convention.

PROGRAM FOR CLEVELAND

In arranging the program for the coming convention, the president has recognized the necessity for separate business meetings, and has so arranged the program that on Tuesday, Wednesday and Thursday there will be sessions for business only, between 4:30 and 6 p. m. Active members only will be expected to attend these meetings, and it is the hope of the trustees that the innovation will prove successful.

Another change in keeping with the general tendency in the direction of the conservation of daylight is that of commencing all sessions promptly at 9 a. m. instead of at 10 a. m., as heretofore. It has also been the desire of the president to allow certain specified times for the inspection of the various non-commercial and commercial exhibits, since it is recognized that members have been deprived of the privilege of inspecting exhibits because of the laudable desire to attend all sessions.

REGARDING MEMBERSHIP

While we cannot complain about the lack of applicants for admission to membership, we do not propose to sit complacently by and see any hospital not represented on our rolls. Fifteen hundred live hospital workers are now enthusiastically testifying to the value of the association to them and we submit that this alone is a forcible argument. One to whom we wrote a short time ago replied, "I don't like the way they are running things." So we wrote: "Then get in and lend the weight of your influence and experience to those who year after year are struggling to improve the association. If you are right, you will find many kindred spirits fully agreeing with you. It is unfair to adversely criticise and refuse your help."

A letter received today advises, "I am certainly deeply indebted to the association for the position secured through the Registration Bureau, and I do not feel as though the small sum paid as annual dues for the last five years is a sufficient recompense to the association for its aid to me." The writer of the above letter enclosed two new applications.

The reader of this bulletin may need the services of the association some day, so get busy now and strengthen our hand by sending in *one* new member.

Almost all superstitions are owing to bad observation, to the *post hoc, ergo propter hoc;* and bad observers are almost all superstitious. Farmers used to attribute disease among cattle to witchcraft; weddings have been attributed to seeing one magpie, deaths to seeing three; and I have heard the most highly educated nowadays draw consequences for the sick closely resembling these.—Florence Nightingale, "Notes on Nursing."

RED CROSS MILITARY UNITS

Classification of Red Cross Military Units—Base Hospitals, General Hospitals, Hospital Units, and Surgical Sections

Red Cross military units which the Red Cross is authorized by the War Department to create for service with the Medical Department of the Army in war are base hospitals, hospital units, surgical sections, and general hospitals.

In any consideration of the matter of Red Cross hospitals the distinction should be borne in mind between the various classes of hospitals which take part in the service of the rescue and care of sick and wounded of armies. It is divided into three zones, the first zone being called the service of the front, and extending from the line of battle back to the field and evacuation hospitals. This zone is operated by the medical service of the Army, and Red Cross organizations do not usually take part in it. The second zone is that of the military base to which the wounded are brought from the first zone and where they first meet, at the *base hospital,* the comforts and facilities of a real hospital which has good beds, trained women nurses, and a large professional staff. The third zone is that of the home country, and the hospitals organized, whether established by the Army or Navy from existing civil hospitals, are called *general hospitals.* In much of the correspondence with this office it is found that when people speak of a base hospital they really mean a general hospital, and that when they propose to establish a base hospital they usually mean a general hospital in their home city.

A *base hospital,* when called into service, is moved to the place where the military authorities need it. It is, however, organized in connection with a large civil hospital which is usually referred to as the "mother" hospital. This is required in order that the unit may be composed of doctors and nurses who are accustomed to work together and have already the spirit of unity and organization. If, on the contrary, it were permitted to enroll a base hospital from doctors and nurses attached to various institutions or in private practice, it would be without cohesion and a unit only in name, and would be in fact only a list of names of little immediate value. The creation of these large and complex organizations is a military matter and also a professional one, and is, therefore, never delegated to chapters but is done in a definite way which has the approval of the War and Navy Departments. The *first* requirement for the organization of a base hospital is a parent institution, either a large civil hospital or a medical school which can furnish the large professional staff needed for it and still have left a sufficient staff to carry on the work of the parent institution. The *second* requirement is to find the member of this staff who, by his age and professional and personal standing, is a leader who can successfully organize the base hospital, if appointed its director for that purpose. The *third* requirement is to raise the funds necessary for the equipment. This is usually done through the local Red Cross chapter, which must be strong enough to raise $25,000 for this purpose and also furnish, through its committees of women, the hospital linen, hospital garments, and surgical dressings necessary for the equipment of the base hospital. The money has in some cases, however, been raised by wealthy friends of the parent institution.

Hospital units are organized groups of physicians, surgeons and nurses, with a number of orderlies, which may

be assigned to duty to supplement the established military hospitals. They may also be assigned to duty on hospital trains and ships. As they are joined to already existing organizations, they will not be equipped with beds and hospital furniture, except for the personal use of the staff. They should, however, have a full operating-room equipment for the surgical section, and such instruments and appliances as may be desired by the medical section.

Surgical sections are special detachments intended to reinforce the operating staffs in time of emergency. The surgical section has the same equipment as the surgical service of a hospital unit. The staff consists of four surgeons, seven nurses, two orderlies, and a clerk.

The base hospital, hospital unit, and surgical section are all movable units which should be prepared to serve wherever their services may be needed by the government. Only in the case of very large hospitals having a strong chapter to back them should the organization of a base hospital be attempted. Hospitals of lesser size desiring to offer their services for a movable unit should undertake one of the two latter.

Civil hospitals in the third zone, the home country, when taken over for use by the military authority are called *general hospitals*. Service with the general hospital does not, therefore, necessitate leaving home. The organization of general hospitals is described in paragraph 20 of the Regulations for the Employment of the American Red Cross in War. Another way in which civil hospitals may be used is for them to give up a certain number of their beds for the sick and wounded soldiers and sailors, the administration of the hospital remaining in the hands of its own trustees and staff.

Sanitary training detachments are units for the instruction of men in first aid, the transportation of the wounded and other matters, knowledge of which is required for service with the sanitary department of the army. The sanitary training detachment differs from the units above mentioned in that it is a chapter activity and is administered by the chapter which should buy its equipment. Every Red Cross chapter should support at least one of these detachments.

The industrial nurse still has her way to make among both the employers and the employed. The former do not always recognize her need, and for the latter the intangible value of health protection is always somewhat remote, unless it is first brought home in some very practical form. Her work, however, is so simple and sane, and her service so evident, that her establishment on a permanent basis is sure to follow her experimental introduction in any new field. For the very reason that industrial nursing is as yet so little standardized, the present-day industrial nurse has it in her power to create what standards she will. What industrial nursing is likely to become is largely in her hands. The work is already being retarded through the employment by many firms of untrained women. It is for the graduate industrial nurse to so prove her value, that as general medical inspection of employees becomes part of state legislation, she will be found an indispensable part of all systems involving better provision for the health of the industrial worker.—Mary S. Gardner, "Public Health Nursing."

Now I get me to my work;
I pray the Lord I may not shirk.
If I should die before the night,
I pray the Lord my work's all right.
—Kansas State Board of Health.

HOSPITAL, MEDICAL, AND SPECIAL MEETINGS

AMERICAN MEDICAL ASSOCIATION

* * *

Interesting Programs Arranged for Hospital Superintendents and Executives, Nurses, and Those Interested in Hospital Social Service

There will be an information desk in the enrolling room at the Hotel Astor where information relative to hospitals and their special interesting features may be obtained.

Monday, June 4, and Tuesday, June 5, all hospitals will receive members from 10 a. m. until 4 p. m. Members who are attending clinics and are interested in hospital administration may visit and study special features of hospital administration after the clinic is over. On Tuesday, June 5, members (limited to 50) desiring to do so may visit Willard Parker, Bellevue, City, Metropolitan, and Riverside Hospitals. Passes for this trip will be issued at the information desk of the hospital committee.

The committee on hospital superintendents and executives consists of George O'Hanlon, chairman; William G. Nealley, secretary; Alexander H. Candlish, Thomas Howell, and Robert J. Wilson.

The committee on trained nursing and training schools consists of Miss Adelaide Nutting, chairman; Miss Elizabeth Greener, vice-chairman; Miss Jessie Murdock, secretary; Mrs. C. E. Bath, Miss Annie W. Goodrich, Miss Amy Hilliard, Miss M. H. Jordan, Miss Anna Maxwell, and Miss Agnes Trull. A program has been arranged which includes visits to Bellevue Hospital, where surgical operations will be observed and nurses' residence inspected; to Bloomingdale Hospital, Occupation Department; to Brooklyn Hospital and Nurses' Home; to City Hospital, Blackwell's Island, School of Nursing, where educational methods in nursing, nurses' home, hospital, occupational activities of patients, and kindergarten will be inspected; to club houses for nurses, including Alumnæ Association, Osborn Hall, and Central Club; to German Hospital and Dispensary (A. Jacobi Department for Children); to Kings County Hospital, Brooklyn, where educational methods in nursing and the nurses' home will be observed; to the Lying-in Hospital; to the Manhattan Maternity and Dispensary, where nursing technic, delivery, and perineal dressing will be demonstrated; to Mount Sinai Hospital, where educational methods and teaching procedures, the surgical supply room, operating room, and isolation department for contagion will be shown; to the occupation department of the Neurological Institute; to the New York Nursery and Child's Hospital, where the observation and admission ward composed of plate glass cubicles, one crib in each, for isolation during observation period required by Board of Health, and the obstetrical department with nursery for premature babies will be inspected; to the Post-Graduate Hospital, Margaret Fahnestock Training School, where nursing methods in adult-ward medical work will be demonstrated; to the Presbyterian Hospital, where dietary procedures relating to metabolism and caloric charts will

be shown; to St. Luke's Hospital, where the preparation and serving of food for private patients and medical and surgical equipment for ward nursing will be observed; to the Skin and Cancer Hospital, Bulkley Training School, where nursing procedures in skin diseases and anesthesia will be demonstrated; and to the Sloane Hospital for Women.

The committee on hospital social service consists of Mr. James K. Paulding, chairman; Miss Mary H. Combs, secretary; Dr. Richard Derby, Dr. Virgil P. Gibney, Dr. S. S. Goldwater, Dr. Alexander Lambert, Dr. William Lohman, Miss Ruth Morgan, Mrs. C. F. Neergaard, Miss Jessy C. Palmer, Dr. Joseph C. Rober, Dr. E. G. Stillman, and Miss Mary E. Wadley. The program includes visits to the social service bureau, tuberculosis division, Day Camp Southfield, and settlement of Bellevue Hospital, with demonstration of oral hygiene by Dr. Frank Billings; to Beth Israel Hospital; to Brooklyn Hospital; to Cumberland Street Hospital, Brooklyn; to the Day Camp Rutherford, Brooklyn; to the pediatric divisions of Harlem Hospital and King's County Hospital; to the baby welfare and poliomyelitis clinics of Lebanon Hospital; to the outdoor obstetrical division of Long Island College Hospital, Brooklyn; to Metropolitan Hospital; to New York Dispensary; to N. Y. Eye and Ear Hospital; to the syphilis, tuberculosis, and children's clinics of New York Hospital; to the Sharonware Workshop for Cardiacs, and to the roof for tuberculosis patients, Vanderbilt Clinic.

KANSAS HOSPITAL ASSOCIATION

* * *

Successful Meeting Held at Salina—Fee-Splitting Condemned by Kansas Hospitals

The Kansas Hospital Association held its most successful meeting at Salina May 1. An address was delivered by Dr. Samuel Murdock, Jr., of Sabetha. The following program was carried out: "How to Succeed With a Private Hospital," Dr. J. S. Sutcliffe, Iola; "Patients' Hospital Records," Dr. J. T. Axtell, Newton; "The Closed Versus the Open Hospital," Dr. H. L. Snyder, Winfield; "The Private Hospital as an Investment," Dr. T. A. Jones, Liberal; "The Educational Function of the Hospital," Mayme M. Conklin, R. N., Topeka; "Cooperation," Dr. J. J. Sippy, state epidemiologist, Topeka; "Some Hospital Problems," Dr. F. W. Shelton, Independence.

The most important business transacted was the passage of a resolution condemning the practice of fee-splitting and requesting the hospitals of the state to refuse to allow surgeons who split fees to use their hospitals. Another important piece of business transacted was a provision to allow the inspection by the members of the executive committee of all the hospitals in the state. From information thus obtained much valuable material will be available next year.

The new officers elected were: president, Dr. F. W. Shelton, Independence; vice-presidents, Dr. J. C. Hall, McPherson, and Dr. G. W. Jones, Lawrence; secretary-treasurer, Dr. W. R. Dillingham, Sabetha.

NEW YORK ASSOCIATION OF DIETITIANS

* * *

Election of Officers—An Active and Progressive Association

The newly organized New York Association of Dietitians is progressing. At the February meeting, held at the Post-Graduate Hospital, the following officers were elected: president, Miss Elva A. George; first vice-president, Mrs. Ruth M. Sturgess; second vice-president, Miss Edith Crews; recording secretary, Miss Bessie E. Speas; corresponding secretary, Miss Inez E. Reeves; treasurer, Miss Margaret L. Best. A committee was appointed to draw up a constitution and by-laws.

In March, Miss Mary S. Snow, lecturer at the New York University, addressed the association at the Mount Sinai Hospital, taking as her subject "When the Dietitian Is a Professional Woman." Her talk was most inspiring and instructive, and supplied the stimulus needed to carry on the enthusiasm of the association. Following Miss Snow's address, the constitution and by-laws were acted upon and adopted.

The April meeting was held at the New York Nursery and Child's Hospital and was given over to the business of appointing various committees. The field for dietitians in the Red Cross was also discussed.

THE MINNESOTA HOSPITAL ASSOCIATION

* * *

Hospital Superintendents of Minnesota Form Association, Adopting Constitution and By-Laws and Electing Officers

In response to a call signed by fourteen hospital superintendents in Minneapolis, a meeting was held at the Radisson hotel on Friday, April 20, for the purpose of forming an association of the hospitals in the state. Of the 152 hospitals to which the call had been sent, 36 were represented at the meeting and 12 others sent written application to be entered as charter members.

The meeting was opened by Mr. G. W. Olson, superintendent of the Swedish Hospital, Minneapolis, in his capacity as president of the Minneapolis Hospital Council, through which organization the move for a state association was initiated. Mr. Olson was elected temporary chairman and Mrs. George G. Eitel, superintendent of Eitel Hospital, Minneapolis, temporary secretary. In his opening remarks the chairman referred to the benefits to be derived from conference and cooperation between the hospitals throughout the state, and mentioned similar organizations in other states, notably Ohio, West Virginia, Kansas, and Maryland. A state association was being formed at the same hour by the hospitals of North Dakota, and Chicago hospital superintendents, after experiencing the benefits of cooperation through a local organization, are making plans to form a strong state association in Illinois. Economies in administration through the standardization of business methods, uniformity of policy in dealing with patients, public, medical profession and employees, were named as some of the practical objects to be attained by conference and cooperation. Legislation for the protection of hospitals against fraud and imposition, and against injustice of many descriptions, can be secured only through statewide organized effort.

It was unanimously decided to organize the Minnesota Hospital Association. Constitution and by-laws, a draft of which had been prepared by a committee of the Minneapolis Hospital Council, were adopted. The object of the association is stated to be "the promotion of economy and efficiency in hospital management, and the welfare of hospitals and hospital workers in Minnesota." Membership is of three classes: active, associate, and honorary. Active membership is open only to those who are executive heads of hospitals. Associate membership is open to trustees or members of hospital boards, and to executive officers of hospitals next in authority below the superintendent. The association is governed by a president, three vice-presidents, a secretary-treasurer, and an executive committee

to which three members are elected and of which the president and secretary-treasurer are ex-officio members. The standing committees, appointed by the president are: auditing committee, membership committee, nominating committee, committee on legislation, committee on constitution and rules.

Following the adoption of the constitution and by-laws, a committee on nomination of permanent officers was appointed with instructions to report at the evening session. Adjournment was then taken until 6 p. m. At 2 p. m. a tour in automobiles provided by Minneapolis hospital superintendents was made to the various hospitals in the city. The new pavilion of the Maternity Hospital was the object of special interest, as was also the large new building being erected for St. Mary's Hospital. Miss Bertha Matlick, superintendent of Hill Crest Hospital, was chairman of the committee in charge of the automobile tour.

At 6 an informal dinner was served in the Empire room of the Radisson hotel in connection with the final session of the meeting. The nominating committee reported the following nominations: president, G. W. Olson, Swedish Hospital, Minneapolis; first vice-president, G. H. Murray, More Hospital, Eveleth; second vice-president, Rev. J. A. Krantz, Bethesda Hospital, St. Paul; third vice-president, Sister Mary Joseph, St. Mary's Hospital, Rochester; secretary-treasurer, Frederick Paulson, Norwegian Deaconess Hospital, Minneapolis; executive committee members, Miss Harriett Hartry, St. Barnabas Hospital, Minneapolis; Rev. Henry Hartig, St. Andrews Hospital, Minneapolis; Dr. S. G. Cobb, Cobb Hospital, St. Paul. The committee declined to name more than one candidate for each office and pleaded for unanimous election of its nominees. This was promptly done. Mr. Paulson pleaded his inability to accept the office of secretary-treasurer, on account of lack of time for the duties involved. His resignation was accepted with regrets and Mrs. George G. Eitel, Eitel Hospital, Minneapolis, was elected to the office of secretary-treasurer.

It was decided to hold the first conference of the association some time in November or early December. The fixing of time and place and the preparation of program was left to the executive committee. A number of topics of especial interest to the hospitals in the smaller communities were suggested.

An accredited institution providing a course of training for midwives is soon to be established in Chicago. It probably will be connected with the Cook County Hospital, according to plans outlined by Mrs. Ira Couch Wood, president of the Illinois Training School for Nurses, at a meeting of the Chicago Woman's Club. Another speaker who discussed the proposed institution at the same meeting was Miss Carolyn Van Blarcom, secretary of the Illinois Society for the Prevention of Blindness, who stated that more than half the births in the United States are attended by midwives and that the majority of those who represent themselves as competent midwives are unfit. "Abroad, midwifery is almost a profession," Miss Van Blarcom said, "and it is impossible to convince foreigners that they should not depend upon it in this country." Mrs. Frank Jerome, of the Fellowship House, declared that properly trained midwives are more needed than social workers.

The average man cries for better opportunities, while the fact is that he is literally surrounded with better opportunities but has not fitted himself to make good in any of them.—C. D. Larson.

DEPARTMENT OF DIETETICS

Conducted by MISS LULU GRAVES,
Dietitian of Lakeside Hospital, Cleveland, Ohio.

Please address items of news and inquiries regarding Department of Dietetics to the editor of this department, Lakeside Hospital, Cleveland, Ohio.

Why Not Have All the Variety We Can?

At this season of the year a large number of hustling American people are just emerging from a comparatively dormant period. We have been comfortably housed in warm homes or offices, shutting out the storm, the cold, and much pure, fresh air; we have ridden in stuffy, dirty street cars or in closed automobiles, as the case may be; thereby foregoing the health-giving exercise of walking; other forms of outdoor exercise have been carefully shelved until pleasant weather returns. As a result we are having "liver trouble." Our food is not appetizing; nothing tastes just right; when the sun comes out brightly it shows up all the shiny spots on our clothes and the threadbare spots in our rugs; we have so many things to fret us and it is so easy to find flaws in everyone and everything that we just give ourselves over to this habit of being critical. Nothing is so easy to criticise as our food, especially since, as few of us have the responsibility of preparing it, we know that it is not being given proper attention.

The green things of which we so greatly feel the need in the spring are more difficult than usual to get this season, since the supply from the South was practically cut off by the freezing weather. Not for many years has the supply of fresh fruit and vegetables been so small or so high-priced, but in addition to this the common staple articles are equally high-priced. The dietitian must not only watch every possible corner to prevent waste, but she must also tax her powers to the utmost to avoid monotony in her menus without making the bills such as will cause difficulty from another source.

Seldom have we had to face so great a problem with the use of potato. It has become such a staple article of diet that many people class it as a necessity; especially our employees of the laboring class and doctors are not willing to forego their use. Rice is in every way suited to be used as an alternative for potatoes, but we find people tire of it readily. The unpolished rice has a characteristic flavor which makes it less apt to pall on the appetite than the polished rice. Every hospital serves chicken more or less and the giblets must be used; a rich brown gravy with the finely cut giblets in it served with nicely steamed rice makes a very palatable and highly nutritive luncheon or supper dish, and does away with the need for potatoes and meat, provided a salad or dessert be served with it. The well-known Turkish pilaf made with rice, tomato, and chopped meat or meat stock may be used in the same way. Escalloped potato, or potato au gratin, will require fewer potatoes than are needed if served plain or mashed. Casserole dishes of small portions of meat and vegetables may be made very palatable, and are economical. Finely

minced ham and corn, well seasoned and mixed with bread crumbs, may well furnish the basis for the light meal of the day.

We are learning to use cheese, but it is not yet being given the place it deserves. Cottage cheese or cream cheese, served plain, one time mixed with cream, at another time with salad dressing, again with jam or marmalade or chopped nuts and a dressing, will help to give us variety for several servings. Cream cheese mixed with jam or marmalade makes a most delicious sandwich.

Apples are our one consolation this year, for they have not taken so great a flight upward, and they can be served in so many ways. If properly done, fried apples are very appetizing and may be served as a vegetable; scooping out the center of applies and filling the shells with chopped meat is an excellent way of making a small amount of meat go a long way and is well liked. The pulp which was scooped out may be made into apple sauce. If one has a meat and vegetable chopper these things do not require more labor or time than can be given them in the average hospital. In neither fried apples nor stuffed apples is it necessary to pare the apple.

Many of our fresh vegetables, such as carrots, turnips and beets, are apt to be withered or strong at this season of the year making it necessary to parboil them and serve them with sauces in order to have them appeal to the fastidious appetite. Our old friends onions and cabbage have joined the class of luxuries, so we cannot suggest an intimate acquaintance with them except for flavoring purposes.

When we turn to canned goods we may find ways of changing their flavor, or in some instances restoring the flavor they may have lost. Onion juice or finely chopped onion may be added to many of our green vegetables such as peas, spinach, carrots, and kale. Lima beans and turnips may also be treated in the same way if one likes the combination of stronger flavors. It is not necessary to brown the onion in butter as many housewives do, but it may be cooked in a small amount of water and allowed to boil dry and thereby brown the onion.

Housewives having access to a garden have learned the value of cooking lettuce with peas. There are always coarser leaves or outside leaves which are not desirable for serving in a hospital that could well be utilized for flavoring peas. Tomatoes are a general favorite for flavoring; they are commonly used in baking beans, but they are not commonly used with lima beans, though they might well be.

Kale and Swiss chard are vegetables not generally cultivated, though they are a good addition to our family of greens, particularly Swiss chard, as both the stems and leaves may be used, and they are usually well liked.

Green peppers make almost any sauce more palatable and improve the flavor of many of our casserole dishes. Pimento is equally good for flavoring and more desirable for the sick than green peppers.

Sauces, gravies, and many of our "heavier" vegetables, such as lima beans and navy beans, may have a little curry powder added, though curry powder must be used sparingly, as it is objectionable to many people if too strong.

Genius is talent set on fire by courage. Fidelity is simply daring to be true in small things as well as great. Courage is the standing army of the soul which keeps it from conquest, pillage and slavery.—Henry van Dyke.

Real progress does not consist in wiping out the past. —Sir Dyce Duckworth.

CURRENT HOSPITAL LITERATURE

ALBERT ALLEMANN, M. D., Foreign Literature.
Army Medical Museum and Library, Office of the Surgeon-General, United States Army.

On the Other Hand: An Affirmative Answer to the Question "Will the Kent Bill Help?" Robert J. Newton. Survey, 1917, XXXVII, No. 19.

Mr. Newton, who is secretary of the Southwestern Conference on Tuberculosis, disagrees with Miss Gertrude Waite (see abstract, THE MODERN HOSPITAL, February, 1917, p. 129). He believes that the Kent bill will tend to diminish the migration of the tuberculous. He assumes that, whenever possible, patients supported indefinitely will be returned by the government and local authorities and that such return will deter other patients in the same communities from going west. Investigation and education to prevent the migration of consumptives who have no means—a course suggested by Miss Waite as an alternative to the Kent bill—will not prevent the death of thousands of American citizens for lack of care and treatment. The Kent bill, in Newton's opinion, is the best measure that can be secured now.

What the State Hospital Can Do in Mental Hygiene. William L. Russell, M. D. Mental Hygiene, 1917, I, No. 1.

Dr. Russell says that the best, and in most states the only, organized agency for dealing medically with mental disorders is the state hospital. Too often, however, the hospital is regarded, not as a source of expert guidance, but as a place where troublesome members of society may be deposited and forgotten. Little or no cooperation exists, therefore, between the hospital and outside physicians. In some states and municipalities, an effort has been made to extend to mental disorders outside of hospitals the knowledge gained within the hospital. The best starting-point for extension work, Dr. Russell remarks, is thorough study of the patients under treatment in the hospitals. This involves study of the families and environment of patients, and knowledge of these factors is of importance when the question of discharge of the patients is under consideration. The parole system, the boarding-out system, and the after-care system have grown out of a recognition of this necessity for extension of the work of the hospital. More recently, social service and out-patient clinics have been undertaken with a view to keeping under supervision patients who have left the hospital and also to giving treatment and advice to patients who have not been in hospital. These clinics are not always conducted at the hospitals, but may be at convenient locations within the hospital district. Thirteen out-patient clinics have been opened in New York State, and nearly all of the Massachusetts hospitals conduct out-patient clinics. Among the patients are children sent to the clinic from school. Talks by hospital physicians to teachers and to parents whose children have been examined at the clinics are recommended as a means

of creating an understanding of the work on the part of the public. Russell believes that hospital extension work will soon "be generally regarded as a definite part of every well-organized state system of dealing with mental disorders."

Hospital Social Service for Children. Henry Dwight Chapin, M. D. Med. Rec., New York, 1917, XCV, No. 9.

No class of hospital patients, says Dr. Chapin, are in more urgent need of social service relief than children. This fact was forced on his attention by the large number of relapsed cases that were returned to the wards after discharge, evidently because poverty or ignorance in the home had quickly undone the work of the hospital. Notwithstanding this, the danger of cross-infection makes the hospital a poor place for the convalescent child.

Dr. Chapin therefore organized a visiting service, originally volunteer, for children discharged from hospital. Increase in volume and importance of work necessitated the employment of a paid visitor, at first a woman physician, but later a trained nurse. The aim was threefold: (1) to make the relief given by the hospital as permanent as possible, through immediate material relief if necessary, or through instruction of the mother in diet or other factors; (2) to find out the underlying cause of the child's sickness, so as to prevent a recurrence in this particular case; (3) to make a broad study of social conditions and disability in the community served by the hospital. The information collected by the visitor includes: condition of child second week after return home; intelligent care of child; physical condition of parents; sanitary condition of house; number of rooms, number light, number dark, number on airshaft; sanitary condition of street—fault of landlord or of city.

Housing conditions were found frequently very bad, and many families were in extreme poverty. In 173 families the average income was from $1 to $5 weekly, and in 379 families it was from $5 to $10 weekly. In 1,000 cases tabulated from November, 1914, to November, 1916, 557 were large (over 5) and 443 were small (less than 5). Most of the families earning the higher wages were small, while the large families were almost invariably in the low-wage class. "As far as the hospital is concerned," concludes Chapin, "social service and prevention are closely allied."

Heliotherapy; the Climatic Station at Leysin, Switzerland. Dr. E. St.-Jacques. Union méd. du Canada, 1917, XLVI, No. 1.

Sunlight as a therapeutic agent has been known for centuries, but the honor of having established its systematic use in the treatment of tuberculosis belongs to Dr. Rollier, a Swiss physician. Leysin is a small village in the Canton of Vaud. Its altitude is about 4,000 feet above the valley of the Rhone river. Mountains, rising 2,000 feet higher, protect it from the cold winds of the north and northwest. The climate is most favorable, as the sunlight is rarely cut off by clouds and fogs. Numerous patients flock to this little place. Rollin has here erected three large buildings for the treatment of tuberculosis. There is also an English sanatorium, besides several other institutions and the Grand Hotel Sanatorium.

The treatment consists in the direct exposure of the body to the sun's rays. This is done gradually, to get the body accustomed to the powerful action of the sun. The results in the treatment of surgical tuberculosis have been most remarkable, but pulmonary tuberculosis has likewise proved to be amenable to this method of treatment.

Possibilities in Social Service for Psychopathic Patients. Mary C. Jarrett, Boston Med. and Surg. Jour., 1917, CLXXVI, No. 6.

The New York State Hospital Commission recently began the work of organizing social service in the fourteen state hospitals, only two of which already have social workers. Six of the Massachusetts state hospitals have made a beginning with one social worker in each hospital, except the Psychopathic Hospital, which has two on public salary. Letters of inquiry elicited the fact that only two other states have attempted any organized form of social service in hospitals for the insane, though plans for social work are under consideration in the state hospitals of several other states. The two states in which it has already been installed are Minnesota, which has one visitor in one of its five hospitals, and Wisconsin, which has one visitor for each of its two hospitals.

Miss Jarrett, who is chief of social service at the Psychopathic Hospital, classes the advantages of the work under three heads: (1) aid to the physician in diagnosis of individual cases and study of certain medical problems; (2) service to the community in preventing families of patients from drifting into privation and dependence and in securing the early treatment of psychopathic members of patients' families; (3) the saving of expense to the state in the prevention of crimes by psychopathic persons.

Education of the Left Hand of Disabled Sailors and Soldiers. C. W. Hutt, M. D. Lancet, London, 1917, I, No. 14.

Dr. Hutt describes the work of M. Tamenne, a Belgian refugee, who since July, 1915, has been instructing disabled soldiers at the Ecole Professionnelle des Blessés at Montpellier in the use of their left hands. M. Tamenne lost his right forearm when he was sixteen years old, but he has so reeducated himself that he can carry out without assistance the small operations of daily life, such as shaving, buttoning collars, lacing shoes, and tying shoelaces, and cutting up food. In addition he has learned and is able to teach writing, shorthand, and typewriting in which the left hand only is used. Those convalescent men from the military hospitals at Montpellier who need such instruction attend his classes daily in the afternoon; over one hundred and thirty have now passed through the course.

M. Tamenne emphasizes the importance of learning to write with the left hand in a style resembling as closely as possible the former handwriting. To change the style of handwriting, he believes, encourages the men to regard themselves as handicapped. The writing taught, therefore, has the same slope as ordinary writing. Clearness and legibility characterize a specimen of the handwriting of a discharged soldier with a paralyzed right arm, reproduced by the *Lancet*.

Health Center Field Work. Arthur C. Schaefer, M. D. New York State Jour. Med., 1917, XVII, No. 4.

The field work of the health centers conducted in Buffalo comprises: sanitation and tenement service; medical school inspection; examination and disposition of cases of mental subnormality, backwardness in school, and feeblemindedness; school nursing; tuberculosis nursing; care and instruction before, during, and after confinement; supervision of midwives; supervision of homes receiving children for board; supervision of children whose mothers receive pensions as widowed mothers; domestic science instruction; cooperation with other medical and social agencies in cases of unemployment, intemperance, wife desertion or abuse, neglect of homes or failure to support, need of institutional care for the aged, etc.

BOOK REVIEWS

Handicrafts for the Handicapped. By Herbert J. Hall, M. D., and Mertice M. C. Buck, authors of "The Work of Our Hands." Pp. 155, with illustrations. Cloth, $1.25. Moffat, Yard & Co., New York, 1916.

For some time the principle of providing occupations for invalids, convalescents, cripples, and other handicapped persons has been gaining acceptance, for two reasons. One is the good of the patient himself; the other is the good of society. When the patient's physical condition permits him to work, occupation is a physical, mental, and moral benefit to him. Moreover, if he can be made partially or wholly self-supporting, society is to that degree relieved of a burden.

For ten years or more Dr. Hall has made use of work as a therapeutic agent in his treatment of nervous disability. In connection with his private sanatorium at Marblehead he has developed for the benefit of handicapped patients the three industries of pottery, hand weaving, and cement working. As he himself has said, the fact that none of these industries has gone bankrupt, "although managed a good deal of the time without especial business ability, speaks volumes for the vitality of the idea." Miss Buck, his collaborator, is a teacher of many years' experience with handicapped patients. The present volume is in the nature of a text-book for several industries adapted to the use of the handicapped, such as basketry, weaving, bookbinding, pottery making, and cement working. An appendix furnishes a list of books on crafts and dealers in craft-work supplies.

The Joyous Art of Gardening. A Book of First Aid to the Amateur. By Frances Duncan, Member of Council, Women's National Farm and Garden Association, Author of "My Garden Doctor," etc. Cloth, $1.75 net. Pp. 239, illustrated. Charles Scribner's Sons, New York, 1917.

The Wayside Flowers of Summer. A Study of the Conspicuous Herbaceous Plants Blooming Upon Our Northern Roadsides During the Months of July and August. By Harriet L. Keeler. Cloth, $1.35 net. Pp. 288, illustrated with 8 colored plates and 124 halftones and line drawings by Mary Keffer. Charles Scribner's Sons, New York, 1917.

These two charming little volumes, we venture to say, will be hailed with joy by directors of occupation and diversion. Miss Duncan's book, with its inviting title, is surely just the one to use in working with a patient who needs to be coaxed into the outdoors. It "is meant especially for him who is not yet a gardener, but would like to be—for Pilgrim starting for the Delectable Mountains, as it were, rather than for Pilgrim arrived"—and is written, not in the dry and technical vein of the gardening pedant, but with all the fresh enthusiasm of one to whom gardening is indeed a joyous art. The hints on how to fit the garden to the house, what to do with the back-yard fence, what can be done with a lattice, are as delightful to read as they are stimulating to the amateur gardener. The directions are simple and clear.

Miss Keeler's little book is equally satisfactory in its way. It is not a book to be read, but one to be taken as a companion on summer rambles and consulted when one wants an introduction to the roadside flowers. Pictures, some in color, enable the unlearned reader to identify a floral stranger, and a brief botanical description completes the identification. Then follows some bit of poetry, of historical or legendary lore, or other interesting information about the flower in question. A very present help this little book will prove to the director of diversion when she takes her classes out for country rambles.

Rake Knitting and Its Special Adaptation to Invalid Workers. By Susan E. Tracy, R. N., author of "Studies in Invalid Occupation." Pp. 34. Paper, 25 cents net. Whitcomb & Barrows, Boston, 1916.

Rake knitting—that is, knitting on a specially devised coarse wooden rake—is an occupation said to possess special advantages for invalid workers. As a to-and-fro process, it is a sedative form of work; yet it allows of experiment and variation. The work is quickly finished, which is encouraging to the depressed invalid. It is adapted to both men and women. The tool may be used in any position; being large, it is not easily lost; and, having no sharp points, it is safe in the hands of the insane. Directions for making afghans, mufflers, hoods, caps, jackets, sweaters, hand bags, and rope rugs are given in this little pamphlet.

FLY POISON AND THE BABY

Supposed Summer Diarrhea and Cholera Infantum Often Due to Fly Poison—Better Find Other Ways of Destroying Flies Than With Arsenic Fly Poison

The December issue of *Child Betterment and Social Welfare* contained a timely editorial on the appalling number of child poisoning cases from the use of arsenical fly destroyers reported in the past three years. It states that the press has reported 106 cases during 1914, 1915 and 1916, many of which were fatal. When it is considered that this number is but a fraction of the real number, that many supposed cholera infantum cases are really arsenic fly poison, one wonders how anyone would risk such a calamity.

But there seems to be an inexplicable carelessness in the use of these deadly poisons, which is perhaps due to ignorance as to their real composition. But let us state right now that the poison paper you put in a saucer of water and set on the window sill, and the can with the poisoned wick are both *arsenic*—one of the deadliest of poisons.

The United States Government has taken notice of this apparently disregarded danger to the lives of little children, and issued the following warning in a public health service bulletin recently published: "Of fly poisons mention should be made, merely for the purpose of condemnation, of those composed of arsenic. Fatal cases of the poisoning of children through the use of such compounds are far too frequent, and, owing to the resemblance of arsenical poisoning to summer diarrhea and cholera infantum, we believe that the cases reported do not, by any means, comprise the total. Arsenical fly destroying devices must, therefore, be rated as extremely dangerous and should never be used, even if other measures are not at hand."

Man has in him by nature but one good thing, the capability of improvement.—Stuart Mill.

NEW INSTRUMENTS AND EQUIPMENT

VINCENZ MUELLER, Technical Editor.
GEO. W. WALLERICH, Associate Editor.

Please address items of news and inquiries regarding New Instruments and Appliances to the editor of this department, 327 Southeast avenue, Oak Park, Illinois.

Hand-Driven Circular Saw for Cutting Bone Transplants, Etc.

During the last few years we have illustrated and described for the readers of THE MODERN HOSPITAL quite a variety of electrically-driven apparatus intended for the purpose of cutting bone grafts from the tibia, for the repair of fractures, for cranial surgery, as well as for use in mastoid and sinus operations, and the demand for this class of apparatus seems to be on the increase. This is no doubt due mainly to the fact that surgeons all over the country are showing a marked preference for the human bone graft and other absorbable material, and are using fewer steel plates and steel nails than formerly, in their fracture work.

Drs. H. A. Shaw and J. T. Mason, of Seattle, the originators of the apparatus illustrated, were of the opinion that the use of bone grafts would be even more extensive and the fracture work generally improved if the average surgeon who is not so fortunate as to be connected with a large hospital where an electrically-driven bone saw is at his disposal, could obtain an efficient apparatus at a cost of about one-third of that required to purchase the electrically-driven outfit. With this end in view the inventors began experimenting with a hand-driven bone saw, and the final result is the apparatus illustrated in its complete form in Fig. 1. Realizing how absolutely essential the element of asepsis is in bone work, their first thought was to devise an instrument that would allow complete sterilization, having no link, such as electric wires or shafts, to connect a sterile with an unsterile field.

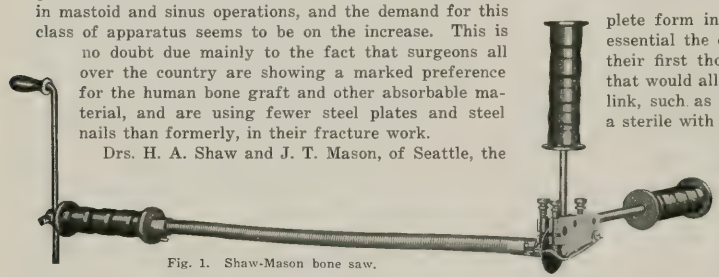


Fig. 1. Shaw-Mason bone saw.

Other points in favor of the practical application and utility of this instrument are its compactness, as it can be carried easily in an ordinary surgical bag, and the fact that it cuts at any angle, direction, or depth, the latter being accurately controlled by a thumbscrew attachment; that the apparatus depends on no particular voltage, amperage, or quality of current; that it can be used in the axis of the shaft of long bones without displacing the same

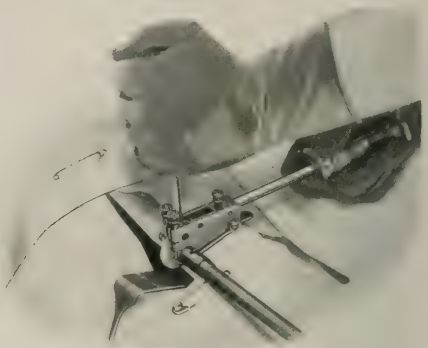


Fig. 3. Cross-cutting a tibial transplant.

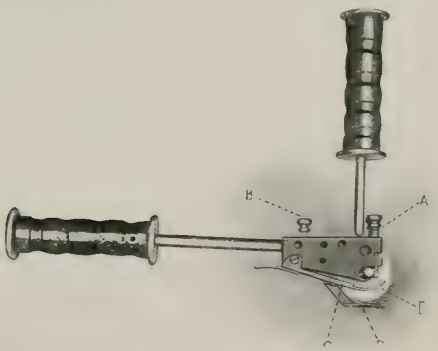


Fig. 2. Saw assembled, but not attached to flexible shaft. A, thumbscrew, one-fourth turn releases saw; B, thumbscrew which regulates depth of guard and consequently depth of cut; C, guard; D, subguard, which protects dura and is used only in cranial work; E, circular saw blade.

Fig. 4. Splitting spinous process in Albee operation.

from their normal bed, thereby preserving the blood supply.

The inventors state that during the experimental stage the criticism was offered that a saw geared one to one would not develop the necessary efficiency. They have found, however, under many and varied applications, that the size, angularity, and set of the teeth were the elemental factors in the cutting qualities, and not entirely the speed.

The saws can be changed quickly, and on account of the low speed do not heat, and consequently do not destroy the osteogenetic properties of bone. Bone drills, reamers, and trephines can be furnished and used with the apparatus, in addition to the single or twin saws.

Goodwill Electric Heating Pad

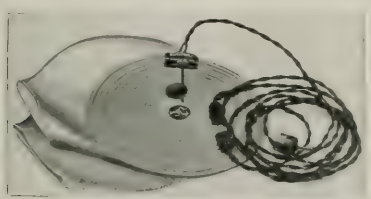
Here is a new electric pad which deserves consideration on account of its sturdy construction and the electric thermostat which forms an important part of the device.

The pad is circular in shape, it being the belief of the designers that this form adapts itself best for all general

Goodwill adjustable thermostat controller, actual size.

purposes. It is of very flexible material and can be bent into any shape without danger of breaking either of the two circuits which carry the current.

It is generally known that practically all natural and physical actions take place more rapidly and effectively under temperatures above the normal. The blood circulation is more rapid and the process of repair is stimulated and hastened. Heat being one of the great counter irritants, it is to be considered that the uses of a continuous heat at exactly the desired temperature are innumerable. The claim made by the manufacturers of this pad is, that by means of the thermostat an exactly even temperature may be maintained for an indefinite time. This thermostat is adjusted to 120 degrees F., when it leaves the factory,



The Goodwill electric pad.

but in a moment's time one can regulate the controller for a temperature from 100 to 120 degrees. In order to make this change in heat regulation, it is only necessary to lift off a metal cap which covers the controller and move the indicating pointer shown in the illustration. The entire regulating device occupies a space in the center of the pad measuring one inch in diameter.

Each pad is supplied with both a cotton flannel slip cover and a waterproof rubber cover, the latter being used when wet applications are to be made or where there is any possibility of moisture.

Sterilizing Outfit for Hypodermic Syringes

A new sterilizing jar has been put on the market under the name of the Vim sterilizer jar. The syringe and needle are immersed in alcohol by being supported on a perforated glass shelf which rests upon a shoulder molded

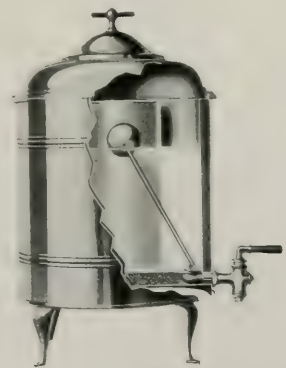
Vim sterilizer jar.

into the wall of the jar itself. The cover of the jar is ground to fit the body, so there is little chance of evaporation of the sterilizing solution. The outfit, therefore, provides a safe, economical, and attractive method of keeping the hypodermic syringes and needles always sterile and ready for immediate use.

The Lyons Milk Urn

The claim has been made that in handling milk in bulk (not bottled) 10 percent is wasted through careless handling, dripping from the faucet, overfilling milk glasses or cream pitchers, improper cooling, improperly mixed milk, etc.

Again, in the handling of food probably no item offers



Lyons milk urn.

greater opportunity for contamination than milk or cream, especially during the summer months. The Lyons milk urn, here illustrated, successfully overcomes all of this

waste and delivers exactly the right amount of milk in the correct mixture of cream content.

In the ordinary form of urn all milk is drawn from the bottom of the container. Unless the milk is agitated occasionally, the last milk drawn naturally contains a higher percentage of cream than the first, and generally several drops are lost in dripping. The Lyons urn is provided with an improved type of faucet, having attached to it by means of a hollow swivel arm the float shown in the illustration. A porthole in the float permits of a portion of the milk from the top being drawn down through the arm or tube, so that just the right mixture of milk and cream is always delivered, whether the urn is full or nearly empty, and whether or not the milk has been standing several hours. When the faucet is turned off, not a drop of milk is left to be wasted in dripping.

The urn has a double wall, insulated with ground cork, which it is claimed will permit of dispensing with ice excepting in very warm weather. A removable ice container is supplied with each urn.

The construction is of the best, heavy copper, tinned inside, being used. The cover has a double shoulder, making a perfectly tight fit.

These urns can be had in a variety of finishes and in capacities of from 10 to 100 quarts.

Safety Operating Lamp

Many surgeons know of instances where the electric light suddenly failed during the performance of a more or less important operation, and hospital administrators as well as the surgeons realize that serious consequences may follow from such failure during operation. No operating room should be without some preparation for such an emergency, in order to make light available instantly. Such safeguards are especially necessary in smaller cities

Fig. 1. The safety operating lamp.

where the electric light service is not derived from a number of interconnected stations, but depends as a rule for its continuity upon a single dynamo, and where, consequently, the risk of interruption of the service is far greater than in the large city hospital.

The "safety operating lamp" shown in the accompanying illustrations overcomes this serious danger, because, in the event of the failure of the electric current, a powerful gas light is immediately available, and "immediately" in this case means in one or two seconds.

The gas light is contained within the lamp, is reflected by the same surfaces that reflect the electric light, and is as efficient for operating purposes as the electric light. To obtain the gas light no more is needed than a pull on the knob shown in the diagram. This knob hangs on the edge

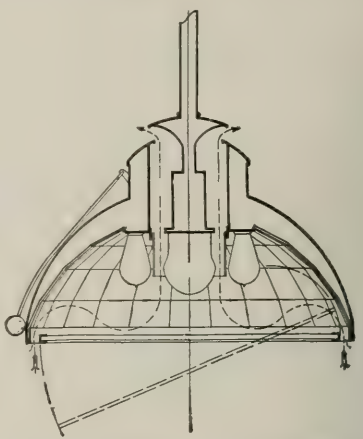


Fig. 2. Showing details of the two lighting systems.

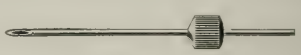
of the lamp, directly over the table and can readily be found in the dark.

A ventilating feature is provided which removes heat. The electric and gas lights, if used together, neutralize each other in color, producing a mixed light which is like daylight in quality and in which the condition of tissues, as evidenced by the colors, can be judged with accuracy.

The lamp is constructed of brass and copper, finished in white enamel. The bottom is made of polished wire glass, affording safety in the event of the bursting of an electric bulb, as this glass will not fall if cracked.

Blood Needle for Wassermann Test

A simple yet apparently practical needle for drawing blood for use in the Wassermann test has been devised and put on the market recently by Messrs. F. S. Banks & Co.



Banks blood needle.

of New York. The illustration practically explains itself. In order to secure the required specimen of blood, the needle is grasped by the hub, the vein is punctured, and the blood will then flow from the short end and is collected in a test tube.

Dr. Lewis A. Sexton, who has been assistant superintendent in charge of the out-patient department of the Johns Hopkins Hospital for the last two years, has recently accepted an appointment as superintendent of the Hartford Hospital, Hartford, Conn. Dr. Sexton is a native of Nashville, Tenn., where he graduated from the medical department of Vanderbilt University in 1906. For six years he was resident physician at the Willard Parker Hospital in New York city. In 1914 he became connected with Johns Hopkins Hospital as assistant superintendent, first being in charge of the admitting office and then going to the out-patient department.

INDEX TO THE MODERN HOSPITAL

Volume VIII, January to June, Inclusive, 1917

GENERAL INDEX

A

Abernethy's Cure for Gout....289
Accidents, Industrial; see Industrial Accidents.
Accounting, Hospital, Form of Annual Report for....120
Achilleion Palace Hospital, Corfu (For. Corr.)....225
Acme Water Still....366
Addison's Disease, Discovery of....416
Advertising a Hospital (Ed.)....32
Advertising the Hospital (Q. & A.)....233
Alcoholics, Bernese Institution for Treatment of (Ab.)—Glaser....364
Alcoholism, Chronic, Successful Medical Treatment in—Towns....6
Alcoholism, Treatment of, Sociological Aspect of—Towns....103
Alienists and Neurologists, Meeting of....358
Ambulance, Field, Work of (For. Corr.)....225
Ambulance, Limousine, New Type of....199
Ambulance, Motor, Cost of Operating—Fawcett....21
American Hospital Association
Bulletin for January....35, 151
Bulletin for February....234
Bulletin for March....274
Bulletin for April....354
Bulletin for May....432
American Hospitals in Germany and Austria (Ab.)—McDill....46
American Medical Association Committees of Interest to Hospital People....151, 235, 269
American Medical Association, 1917 Meeting of....434
American Nurses' Association, 1917 Meeting of....430
American Public Health Protection—Hemenway (Bk. Rev.)....156
Anesthesia and Analgesia, American Year Book of—McMechan (Bk. Rev.)....365
Anesthetic, Nurse Permitted to Give in Pennsylvania....126
Anesthetist, Nurse....289
Anglo-Russian Hospital at Petrograd (For. Corr.)....226
Antituberculosis Campaign; see Tuberculosis, Campaign Against.
Arequipa Sanatorium, Potteries of....394
Army Base Hospital, Federal, First Diet Kitchen in....161
Asepsis and Care, in Hospitals for Infants (Ab.)—Strauch....362
Aspirating, Stomach Lavage and Feeding Tube....368
Aspirating Tube, Gallbladder....307
Associated Jewish Charities and Jewish Aid Society Providing Opportunity for Handicapped to Support Themselves—Taussig....418
Athletic Field, Institution—Wright....119
Austria and Germany, American Hospitals in (Ab.)—McDill....46
Authors Request Aid (Ed.)....343
Autocrat of the Staff (Ed.)....202
Autopsies, Value, Methods of Obtaining and Protection of the Hospital—Winternitz....36

B

Babies' Hospitals; see Infants, Hospitals for.
Baby and Fly Poison....439
Baby Culture, School Children on....34
Back Rest, Butler Sanitary....369
Bacteriology and Surgical Technic for Nurses—Stoney (Bk. Rev.)....237
Bacteriology in the Curriculum of the Training School—Van de Vrede....52
Banks Blood Needle....442
Bartine Goes to Flower Hospital....31
Base Hospitals (Red Cross Military Units)....433
Baths and Bathing—Ferris....359
Battle Creek, Public Health Nursing Course at....280
Battle Creek Sanitarium Home for Nurses....147
Beds, Endowed, Price of (Q. & A.)....302
"Been Hoa," French Red Cross Hospital Ship (Ab.)—Koning....47
Berlin Institution for Crippled Children (Ab.)—McMurtrie....45
Bernese Institution for Treatment of Alcoholics (Ab.)—Glaser....364
Berry Window Ventilator....304
Beth Israel Hospital, New York City, Remodeling (with plans)—Frank....204
Binocular Magnifier, New....79
Blindness, Illinois Society for Prevention of, First Report of....62
Blindness, Prevention of, in Ohio—Stewart....219
Blood Needle for Wassermann Test....442
Bologna, Institution of Maternal Assistance in (Ab.)—Finizio....128
Bone Engine, Hoglund....306
Bone Transplants, Hand-Driven Circular Saw for Cutting....440
Boston, Instructive District Nursing Association of....386
Boys' Club a Preventive Prescription—Keith....370
Brooklyn Hospital Dispensary, Genito-Urinary Department (Ab.)....363
Brush, F., Poem by (Imagination in the Hospital) (Ed.)....272
Buildings, Old, for Hospital Purposes (Ed.)....32
Burke Foundation Athletic Field—Wright....119
Burke Foundation, Library of—Burgoyne....251
Butler Sanitary Back Rest....369

C

Canadian Soldiers, Disabled, Vocational Training for....424
California, County Hospitals of, Condemned....12
Cancer, Prevention of by Annual Examination....20
Cardiac Disease, Need of Special Clinic for (Ab.)—Kahn....46
Carrel Apparatus for Wound Sterilization by Means of "Dakin's" Solution....367
Catsup, New Pure-Food: Or, When Is a Chemical Not a Chemical—Wesener....227, 288, 349
Central Hospital of Peking (with plans)—Wu....241
Chairs, Morris; see Morris Chairs.
Chaplain, Contribution of, to Team-Work—Tracy....122
Charges Between Hospital Departments (Q. & A.)....71
Charges in Hospitals, Too Many Extra (Q. & A.)....69
Charities and Correction, National Conference of, Proceedings of, at Forty-third Annual Session, 1916 (Bk. Rev.)....155
Charities and Correction, National Conference of, Meeting of....357
Chemistry and Physics for Nurses—Bliss and Olive (Bk. Rev.)....82
Chicago Dietitians Organize....57
Chicago, Municipal Tuberculosis Diagnostic Stations Proposed in....209
Child Labor and Preparedness (Ed.)....423
Child Labor Conference at Baltimore....357
Child Labor During the War....427
Child Labor in Kentucky....427
Child, Unusual, Social Adjustment of....358
Childbirth, Care of, in Detroit....290
Children, Hospital Social Service for (Ab.)—Chapin....438
Children's Building of Tuberculosis League of Pittsburgh (with plans)—White, Stewart and Shuey....312
Children's Bureau, Must It Be Crippled (Ed.)....117
Children's Hospitals; see also Infants, Hospitals for.
Children's Hospitals
Convalescent Hospital for Poliomyelitis....247
Fordham Hospital, New York, Tent for Poliomyelitis Treatment....330
Tuberculosis League of Pittsburgh, New Children's Building of....312
Tuberculosis Preventorium for Children, Farmingdale, N. J....177
China, Medical Renaissance in....307
China, Nursing Insane in....280
China, Training Nurses in....266
China, Unchanging No More (Ed.)....273
Chinese Medicine and Educated Chinese....296
Chinese, Model Hospital Established and Managed by—Wu....241
Chinese Mothers-in-Law, Maternity Lectures for....248
Cholera, Preventive Measures Against, in Military Isolation Hospital (Ab.)—Della Vida....362
Cincinnati and Suburban Telephone Co., Welfare Work of—McComas....75
Class Method of Home Treatment in Pulmonary Tuberculosis, Results Obtained by (Ab.)—Pratt....211
Clerkships, Clinical, in First Surgical (Cornell) Division, New York Hospital (Ab.)—Lee....129
Cleveland, Dietitians of....347
Cleveland Hospital Council, Standard Report Form of....120
Clinic, School; see School Clinic.
Clinic, Special, Need of, for Cases of Heart Disease (Ab.)—Kahn....46
Clinical Clerkships in First Surgical (Cornell) Division at New York Hospital (Ab.)—Lee....129
Clinical Laboratory Technic for Nurses—Gibson (Bk. Rev.)....81
Clinical Studies in Relationship of Insanity to Crime—Bowers (Bk. Rev.)....365
Clinical Tuberculosis—Pottenger (Bk. Rev.)....365
Clinics; see also Heart Disease Clinics, Occupational Disease Clinics, Poliomyelitis Clinics, School Clinics, Venereal Disease Clinics.
Coal, Economy in (Hint)....162
Coal, How Much, Does a Patient Cost—Beadle....172
Commonwealth Edison Company, Welfare Work of—Kobick....231
Community Hospital Created by Selling Stock—Oliver....163
Community Hospital, Elverum (Ab.)—Petersen....45
Community Hospital, Small, Equipment of—Hornsby....29
Community Hospital, Small, Interns, Nurses, and Employees—Hornsby....185
Community Hospital, Small, Organization—Hornsby....110
Community Hospital, Small, That Meets a Need (Wayne Hospital)—Lutgen....101
Community, Hospital Survey of—Weber....99
Community Hospitals
Wayne Hospital, Wayne, Neb....101
Western Minnesota Hospital, Graceville, Minn....163
Community Plan, Urban, for Health and Medical Service—Armstrong and Berkowitz....309
Consumption; see Tuberculosis, Pulmonary.
Contagious Diseases; see also Infectious Diseases.
Contagious Diseases, Hospital for, Organization and Working of (Ab.)—Labbé....362
Control of Hunger in Health and Disease—Carlson (Bk. Rev.)....155
Convalescent Home for Officers (For. Corr.)....226
Cook County Hospital, X-Ray Department of—Blaine....321
Cook County Hospital, Occupational Therapy in....425
Cook County Tuberculosis Hospital, Oak Forest, Ill.—Bailey....377
Cost Accounting; see Accounting.
Cost, High (of Hospital Living) (Ed.)....118
Cost, High, of Living in the Hospital, Solving the Problem of—Fowler....90
Costs, Hospital (Q. & A.)....71
County Health Administration (Ab.)—Rankin....130
County Hospital, New England—French....26

County Hospitals
Cook County Hospital, X-Ray Department of....321
Milford County Hospital, Milford, Mass.... 26
County Hospitals of California Condemned.... 12
County Tuberculosis Sanatoriums in Minnesota—Bosworth, Sund and Dunham....182
Crime, Relationship of Insanity to, Clinical Studies in—Bowers (Bk. Rev.)....365
Criminals, Insane, Work in Treatment of—Bowers....406
Crippled Children, Berlin Institution for (Ab.)—McMurtrie.... 45
Crippled Children, Problem of....298
Crippled Children, Temporary Convalescent Hospital of Day Home and School for, New York—Wight....247
Crippled Soldiers, Reeducation of....424
Cure, Perfect, an Impossibility....188

D

"Dakin's" Solution, Carrel Apparatus for Wound Sterilization by Means of....367
Damages, Suits for, Against Hospitals (Ed.)....273
Damages, Suits for, and Hospitals Pflaum (Corr.)....299
Dasheen....228
Defectives; see also Subnormals.
Defectives, Mental, Care of, in Ontario....350
Defectives, Routine Mental Tests for....194
Deformities and Joint Diseases, Hospital for, New Building for (with plans)—Craiger and Heidelberg.... 83
Dementia Precox, Occupational Therapy in—Mabie....417
Departments, Hospital, Charges Between (Q. & A.).... 71
Detroit Mothers, Two Thousand, Care of, in Childbirth....290
Detroit Receiving Hospital, Work of—Dretzka.... 96
Devices, New (Hint)....162
Diagnosis, Group, and Hospitals (Ed.)....200
Diagnosis, Group
Group Study in Hospitals (Ab.)—Birtch....213
Paid Service in Hospitals (Ab.)—Schulman....212
Surgical Staff Conference (Ab.)—Adair.... 47
Diagnosis Hospital, First....225
Diagnosis Hospital, First, San Diego, Claims....343
Diagnosis, Obscurity of Disease a Spur to Success in—Ferris....222
Diagnosis, Team-Work in; see Diagnosis Group.
Dictionary, Medical, Practitioner's—Gould (Bk. Rev.)....155
Diet Kitchen, First, in Federal Army Base Hospital....161
Diet, Prime Importance of—Ferris.... 66
Diet, Variety in....436
Dietary, Hospital—Joslin.... 57
Dietetics in Ohio....227
Dietitian, Cooperation With....136
Dietitian, Problems of, and Her Relation to the Hospital and Training School—Atwood....285
Dietitian, Status of, in Ohio—Upham....229
Dietitians, Chicago, Organize.... 57
Dietitians, New York Association of....435
Dietitians, New York, Organize....227
Dietitians of Cleveland....347
Diseases, Occupational; see Occupational Diseases.
Diseases of Occupation and Vocational Hygiene—Kober and Hanson (Bk. Rev.)....156
Disinfection; see Fumigation.
Disinfector, Movable (For. Corr.)....225
Dispensaries; see also Tuberculosis Dispensaries.
Dispensaries, Traveling, in India.... 98
Dispensary Practice, Ideals and Standards of....135
Dispensary, Tuberculin (Ab.)—Newton....127
Dispensary Work, Growth of....144
Diversion; see Entertainment.
Diversion Therapy in Sanatoriums (Ed.)....341
Diversional Therapy in Mental Diseases (Ab.)—Robinson....129
Doctor, Trials of....237
Doors and Floors, Soundproof (Q. & A.)....233
Drawing and Modeling, Therapeutic Value of—Barton....399
Drumcondra Hospital: A Short History (Ab.)—Cosgrave....364
Drunkenness; see Alcoholism.

E

Eastman Kodak Company, Rochester, N. Y., Welfare Work of....295
Editorial Offices, Our, New (Ed.)....203
Education, Medical; see Medical Education.
Eight-Hour Day for Nurses (Ed.)....271
Eight-Hour Law for Nurses (The Nurse—Laborer or Professional?)....269
Electric Heating Pad, Goodwill....441
Electricity in the Hospital—Myers....205
Electrocardiograph—Bacon and Smith....279
Elverum Community Hospital (Ab.)—Petersen.... 45
Emergency Hospitals for Industrial Plants—Watters....107
Employees, Contentment of—Cary....232
Employment, Mental Tests for Candidates for (Ab.)—Rossy.... 45
Engine, Bone; see Bone Engine.
English Language, Advantages of....289
Entertainment and Occupation for Tuberculous Patients—Laird....387
Entertainment in Sanatoriums (Diversion Therapy in Sanatoriums) (Ed.)....341
Epileptics, Insane, Lack of Hospitals for, in Pennsylvania....163
Equipment, Hospital, Labor-Saving Devices in (Ab.)—Stevens....213
Equipment of Small Community Hospital—Hornsby.... 29
Ether, Device for Warming, During Inhalation....305
Ethics for Nurses, Studies in—Aikens (Bk. Rev.).... 81
Examination; see Health Examination, Physical Examination.
Exchanges, Foreign, Cut Off by the War (Ed.)....343
Eye Localizer, Sweet....240
Eye Strain in Government Employees....301

F

Farms, Child Labor on....427
Fats, Saving of....224
Feeding, Stomach Lavage, and Aspirating Tube....368
Fees, Hospital, Collection of....350
Fees, Hospital, in Industrial Accident Cases....198
Fire Prevention and Fire Protection for Hospitals, A Manual of—Eichel (Bk. Rev.).... 81
Firestone Tire and Rubber Company, Industrial Service in Factory of—Lee....353
First Aid and Home Nursing, Teaching of—Stewart....215
Flooring, Old, Replacing of (Q. & A.)....302
Floors and Doors, Soundproof (Q. & A.)....233
Floors, Cold Ward (Q. & A.)....148
Floors, Operating Room (Q. & A.)....149
Flower Hospital, Bartine Goes to.... 31
Flowers, Wayside, of Summer (Bk. Rev.)—Keeler....439
Fly Poison and the Baby....439
Food, Elimination of (Man Is Like a Furnace)....230
Food Products, The Source, Chemistry and Use of—Bailey (Bk. Rev.).... 81
Foods, Pure—Olsen (Bk. Rev.)....236
Fordham Hospital, New York, Tent for Poliomyelitis Treatment—Boorstein....330
Foreign Exchanges Cut Off by the War (Ed.)....343
French Red Cross Hospital Ship "Been Hoa" (Ab.)—Koning.... 47
French Visiting Nurses and Sanatorium Apartments....393
Front Door Superintendent (Ed.)....202
Fuel Consumers, Types of—Beadle....172
Fuel, Economy in (Hint)....162
Fumigation in Hospitals—Bishop (Corr.)....375
Fumigation, Reasons for Ineffectiveness of—Ward....115
Furnishings; see also Morris Chairs.
Furnishings, Individual Gifts of (Q. & A.)....361

G

Gallbladder Aspirating Tube....307
Gallieni, General, Medical Creation of (Ab.)—d'Anfreville de la Salle....364
Games, Sterilized, for Children....298
Garbagnati, Tuberculosis Hospital at, Work of Construction of (Ab.)....212
Gardening, Joyous Art of (Bk. Rev.)—Duncan....439
Garment Workers, Gas-Poisoned....353
Gelatin and Jelly Powders—Street.... 93
General Hospital, Occupational Therapy in....425
General Hospitals; see also Community Hospitals, County Hospitals.
General Hospitals (Red Cross Military Units)....433
General Hospitals
Central Hospital of Peking....241
Jordan Hospital, Plymouth, Mass....258
Muhlenberg Hospital, Plainfield, N. J.... 1
Oklahoma Hospital, Tulsa, Okla....333
Philippine General Hospital, Manila....165
St. Joseph's Hospital, Kansas City, Mo.... 10
Genito-Urinary Department, Brooklyn Hospital Dispensary (Ab.)....363
Germ Proof, Strictly—Guiterman....198
German Hospital Ships, Equipment of....424
German Red Cross Hospital Train—Wright....328
Germany and Austria, American Hospitals in (Ab.)—McDill.... 46
Glucose, Commercial, Chemical Composition of, and Its Digestibility—Wesener and Teller....60, 138
Goodrich, Miss Annie W., Appointed Director of Nursing Service of Henry Street Settlement....203
Goodwill Electric Heating Pad....441
Gout, Abernethy's Cure for....289
Government Employees, Eye Strain in....301
Greeley Hypodermic Unit....304
Green Gables, Lincoln, Neb. (A Sanatorium With a Home-like Atmosphere)—Field Editor....249
Group Diagnosis; see Diagnosis, Group.
Group Study, A Plea for Medical Co-operation in Hospitals (Ab.)—Birtch....213
Guam, United States Naval Hospital on Island of (with plan)—Johnson.... 16
Gynecological and Surgical Nursing—Parker and Breckenridge (Bk. Rev.).... 82

H

Hand, Left, of Disabled Sailors and Soldiers, Education of (Ab.)—Hutt....438
Handicapped, Occupations for; see also Occupational Therapy.
Handicapped, Occupations for
Crippled Soldiers, Reeducation of....424
Making Dependents Self-Supporting—Taussig....418
Mental Hygiene and Occupation—Thomson....397
Potteries of Arequipa Sanatorium—Brown....394
Remunerative Occupations for the Handicapped—Hall....383
Handicrafts for the Handicapped (Bk. Rev.)—Hall and Buck....439
Health and Happiness Week in Minneapolis....124
Health and Medical Service, Urban Community Plan for—Armstrong and Berkowitz....309
Health Center Field Work (Ab.)—Schaefer....438
Health Examination at School Entrance....360
Health Insurance in Hospitals (Q. & A.)....233
Health, Public; see Public Health.
Heart Cases, Diagnosis of (Electrocardiograph)—Bacon and Smith..279
Heart Disease Clinic, Need for (Ab.)—Kahn.... 46
Heating Pad, Goodwill Electric....441
Heliotherapy; the Climatic Station at Leysin, Switzerland (Ab.)—St. Jacques....438
History of Occupational Therapy—Dunton....380
History Sheet Shorthand....210
Hoglund Bone Engine....306
Home and Hospital Care for Patients (Ab.)—Wortman.... 47
Home Economics in Hospital Administration, Some Phases of—(Ab.)—Selden....364
Home Economics in Relation to Hotel Problems—White....347
Home Economics Meeting, Ohio, Report of.... 57
Homelike Atmosphere, Sanatorium With—Field Editor....249
Homestake Mining Co., Lead, S. D., Welfare Work of the—Clough.. 74
Hospital Accounting; see Accounting.
Hospital, Achilleion Palace, Corfu (For. Corr.)....225
Hospital Administration, Some Phases of Home Economics in (Ab.)—Selden....364

Hospital; Advertising of; see Advertising.
Hospital and Home Care for Patients (Ab.)—Wortman..... 47
Hospital and Medical Education (Ab.) Holmes.....214
Hospital and Medical Profession, Relation of Modern Medical School to (Ab.)—Blumer..... 46
Hospital and Patient, Relation of.....301
Hospital and Training School, Relation of Dietitian to—Atwood....285
Hospital, Anglo-Russian, at Petrograd (For. Corr.).....226
Hospital Autopsies, Value and Methods of Obtaining—Winternitz... 36
Hospital Costs; see Costs, Hospital.
Hospital Departments; see Departments, Hospital.
Hospital Dietary—Joslin..... 57
Hospital Economies, Reports of, Desired—Morritt (Corr.).....375
Hospital Equipment; see Equipment.
Hospital Experience With Open-Air Hall (Ab.)—LeRutte.....127
Hospital Fees; see Fees.
Hospital, Fire Prevention in; see Fire Prevention in Hospitals.
Hospital for Deformities and Joint Diseases, New Building for—Craiger and Heidelberg..... 83
Hospital for Insane, Brockville, Ont., New Reception Building of—Mitchell..... 97
Hospital, Imagination in (Ed.).....272
Hospital Inventory (Hint).....376
Hospital Laboratory; see Laboratory.
Hospital Library; see Library.
Hospital, Model, Established and Managed by Chinese (Central Hospital of Peking) Wu.....241
Hospital Organization in Rural Pennsylvania—Foss.....275
Hospital Patients; see Patients, Hospital.
Hospital Pharmacy in Stettin, Organization of (Ab.)—Derlin.....213
Hospital Purposes, Old Buildings for (Ed.)..... 32
Hospital, Relation of Training School to—Warner.....344
Hospital Ship "Been Hoa," French Red Cross (Ab.)—Koning..... 47
Hospital Ship, Navy's First Complete..... 34
Hospital Ships, German, Equipment of.....424
Hospital, Small Community, Equipment of—Hornsby..... 29
Hospital, Small, Cost of (Q. & A.).....302
Hospital, Small, Laboratory in (Q. & A.).....361
Hospital, Small, Medical Staff in (Ed.)..... 33
Hospital, Small, Special Number for the (Ed.).....421
Hospital, Small, Staff in (Q. & A.).....148
Hospital Social Service; see Social Service.
Hospital Staff; see Staff.
Hospital Supplies, Economy in (Solving the Problem of the High Cost of Living in the Hospital)—Fowler..... 90
Hospital Supplies, Economy in (The High Cost) (Ed.).....118
Hospital Supplies, How United States Government Buys—Fawcett..372
Hospital Survey of a Community—Weber..... 99
Hospital, Teaching in (Hint).....376
Hospital Train, German Red Cross—Wright.....328
Hospital Units, Red Cross Military.....433
Hospital Work and X-Ray Research.....295
Hospital Work in Island of Porto Rico—Hildreth.....245
Hospital World and the War (Ed.).....420
Hospitals; see also Army Hospitals, Children's Hospitals, Community Hospitals, County Hospitals, Diagnosis Hospitals, Emergency Hospitals, General Hospitals, Industrial Hospitals; Infants, Hospitals for; Insane, Hospitals for; Isolation Hospitals, Military Hospitals, Municipal Hospitals, Naval Hospitals, Orthopedic Hospitals; Pharmacies, Hospital; Psychopathic Hospitals, Receiving Hospitals, State Hospitals, Surgical Hospitals, Trachoma Hospitals, Tuberculosis Hospitals, War Hospitals.
Hospitals, American, in Germany and Austria (Ab.)—McDill..... 46
Hospitals and Group Diagnosis (Ed.).....200
Hospitals and Land Values (Ed.).....116
Hospitals and Noise Nuisance—Bacon (Corr.).....375
Hospitals and Sanitary Stations (Ab.)—Roux.....364
Hospitals, Annual Reports of; see Reports, Annual.
Hospitals, County, of California Condemned..... 12
Hospitals Facing Parks (Ed.).....342
Hospitals, Fire Prevention and Fire Protection for, Manual of—Eichel (Bk. Rev.)..... 81
Hospitals, Fumigation in—Bisbee (Corr.).....375
Hospitals, Health Insurance in (Q. & A.).....233
Hospitals, Individual, Descriptions of
Beth Israel Hospital, New York.....204
Central Hospital of Peking, China.....241
Cook County Tuberculosis Hospital, Oak Forest, Ill.—Bailey.....377
Detroit Receiving Hospital..... 96
Fordham Hospital, New York, Tent for Poliomyelitis Treatment...330
Green Gables, Lincoln, Neb.....249
Hospital for Deformities and Joint Diseases, New York..... 83
Hospital for Insane, Brockville, Ont.....97
Immanuel Deaconess Surgical Hospital, Omaha, Neb.....336
Indiana State Hospital for Insane Criminals (with plans)—Bowers.....406
Jordan Hospital, Plymouth, Mass.....258
Milford County Hospital, Milford, Mass..... 26
Muhlenberg Hospital, Plainfield, N. J..... 1
Municipal Tuberculosis Diagnostic Stations of City of Chicago.....209
Nopeming Hospital for Tuberculosis, Duluth, Minn.....189
Oklahoma Hospital, Tulsa, Okla.....333
Philippine General Hospital, Manila.....165
St. Joseph's, Kansas City, Mo..... 10
Temporary Convalescent Hospital of Day Home and School for Crippled Children (Poliomyelitis), New York.....247
Tuberculosis League of Pittsburgh, Children's Building of.....312
Tuberculosis Preventorium for Children, Farmingdale, N. J.....177
United States Naval Hospital, Guam..... 16
Wayne Hospital, Wayne, Neb.....101
Western Minnesota Hospital, Graceville, Minn.....163
Hospitals, Large, Treatment of Injured Workmen in (Ab.)—Korteweg.....128
Hospitals, Paid Service in, Its Advantages Over the Present Free System (Ab.)—Schulman.....212
Hospitals, Plea for Medical Cooperation in (Ab.)—Birtch.....213
Hospitals, Salaries in (Q. & A.).....69
Hospitals, Selling to (The Superintendent and the Salesman) (Ed.)..117
Hospitals, Standardization of: Comment on Classification—Hornsby.338
Hospitals, Standardization of: Introduction and Classification—Hornsby.....256
Hospitals, Standardizing—Hornsby (Ed.).....271
Hospitals, Suits for Damages Against (Ed.).....273
Hospitals, Suits for Damages Against—Pflaum (Corr.).....299
Hospitals, Taste and Refinement in (Ed.).....341
Hospitals, Trachoma, in Mountain Region of South..... 31
Hotel Problems, Home Economics in Relation to—White.....347
Hunger, Control of, in Health and Disease—Carlson (Bk. Rev.)....155
Hygiene; see also Social Hygiene.
Hygiene and Preventive Medicine—Rosenau (Bk. Rev.).....237
Hygiene, Mental; see Mental Hygiene.
Hygiene, Vocational, and Diseases of Occupation—Kober and Hanson (Bk. Rev.).....156
Hypodermic Sterilizing Outfit, Vest-Pocket.....366
Hypodermic Syringes, Sterilizing Outfit for.....441
Hypodermic Units.....304

I

Ice Cream, Composition, Manufacture, and Value—Street.....317
Ill Health, Side-Stepping—Bowers (Bk. Rev.).....236
Imagination in the Hospital (Ed.).....272
Immanuel Deaconess Surgical Hospital, Omaha, Neb. (with plans)—Cervin.....336
India, Traveling Dispensaries in..... 98
Indians of the City of Mexico, Royal Hospital for (Ab.)—de la Fuente.....213
Indiana State Hospital for Insane Criminals, Occupational Therapy in (with plans)—Bowers.....406
Indigent Sick, Cooperative Care of—Small.....180
Industrial Accident Cases, Hospital Fees in.....198
Industrial Medicine; see also Occupational Diseases.
Industrial Medicine and Surgery, Clinic on.....154
Industrial Patients, Sanatorium Treatment of.....393
Industrial Plant, a Modern, Medical Department of (Ab.)—West....129
Industrial Plants, Emergency Hospitals for—Watters.....107
Industrial Service, Practical—Hill.....351
Inebriety; see Alcoholism.
Infantile Paralysis; see Poliomyelitis.
Infants, Hospitals for; see also Children's Hospitals.
Infants, Hospitals for, Care and Asepsis in (Ab.)—Strauch.....362
Infection, Clinical Thermometer as a Carrier of (Ab.)—Martocci-Pisculli..... 47
Infectious Diseases; see also Contagious Diseases.
Infectious Diseases, Establishment of Barracks for, in Institutions for Mental Diseases (Ab.)—van Walsem.....214
Infectious Diseases, Prevention of Transmission of, in Hospitals (Ab.)—Feer.....362
Insane, Beneficial Effects of Work Therapy for—Clark.....392
Insane, Condition of, After Discharge. Preliminary Welfare Report of Cases Recently Discharged from Watertown State Hospital (Ab.) Causey.....214
Insane Criminals, Work in Treatment of—Bowers.....406
Insane Epileptics, Lack of Hospitals for, in Pennsylvania.....163
Insane, Hospital for, Occupation Therapy in—Ruggles.....404
Insane, Hospitals for
Hospital for Insane, Brockville, Ont., New Reception Building of (with plans)—Mitchell..... 97
Indiana State Hospital for Insane Criminals—Bowers.....406
Insane, Indigent, State Care of (Ab.)—Burr.....127
Insane, Institutions for, Establishment of Barracks for Infectious Diseases in (Ab.)—van Walsem.....214
Insane, Nursing of, in China.....280
Insane, Social Service for (Ab.)—Jarrett.....438
Insane, State versus County Care of..... 31
Insanity, Relationship of, to Crime, Clinical Studies in—Bowers (Bk. Rev.).....365
Institution Libraries; see Libraries, Institution.
Instructive District Nursing Association of Boston.....386
Insurance, Health, in Hospitals (Q. & A.).....233
Intern, Contribution of, to the Team-Work—Beckman..... 43
Interns in Small Community Hospital—Hornsby.....185
Interns, Service of..... 68
Internship, Ruling on.....303
Interpreters for Hospital Patients (Q. & A.).....361
Intravenous Salvarsan Injection, Apparatus for—Kaufman..... 79
Inventory, Hospital (Hint).....376
Isolation Hospitals, Value of, for Small Cities (Ab.)—Caverly.....129
Isolation Pavilions (Barracks) for Infectious Diseases in Institutions for Mental Diseases) (Ab.)—van Walsem.....214
Isolation Units (Hint).....376
Italian Hospital in Lugano, Switzerland (Ab.)—Pini.....212

J

Java, Nursing Conditions in.....431
Jelly Powders and Gelatin—Street..... 93
Jewish Aid and Associated Jewish Charities Providing Opportunity for Handicapped to Support Themselves.—Taussig.....418
Joint Diseases and Deformities, Hospital for, New Buildings for (with plans)—Craiger and Heidelberg..... 83
Jordan Hospital, Plymouth, Mass., Architecture and Equipment of (with plans)—Mixter and Kellogg.....258
Joyous Art of Gardening (Bk. Rev.)—Duncan.....439
Jubilee of the New Hospital for Women.....413
July, Special Features for (Ed.).....422

K

Kanavel Stomach Lavage, Feeding, and Aspirating Tube.....368
Kansas Hospital Association, 1917 Meeting of.....435
Kells Nonleakable Trocar.....368
Kent Bill and Migration of Tuberculous (Ab.)—Newton.....437
Kent Bill; Would It Help Tuberculous? (Ab.)—Vaile.....129
Kentucky, Child Labor in.....427
Knitting, Rake, and Its Special Adaptation to Invalid Workers (Bk. Rev.)—Tracy.....439
Kodak Company, Eastman, Rochester, N. Y., Welfare Work of....295

L

Labor-Saving Devices in Hospital Equipment (Ab.)—Stevens.....213
Laboratory in Small Hospital (Q. & A.).....361
Laboratory Methods, Hospital, for Students, Technicians, and Clinicians—McJunkin (Bk. Rev.).....156

Laboratory Technic, Clinical, for Nurses—Gibson..... 50
Laboratory Technic, Clinical, for Nurses—Gibson (Bk. Rev.)..... 81
Lakeside Hospital, Cleveland, Ohio, Dispensary Treatment for Venereal Diseases in—Tupper.....223
Lamp, Safety Operating.....442
Land Values and Hospitals (Ed.).....116
Lavage, Stomach, Feeding, and Aspirating Tube.....368
Leather, Imitation, and Linoleum—Rogers.....210
Leitz Automatic Feed Freezing Microtome.....366
Leysin, Switzerland, Climatic Station at; Heliotherapy (Ab.)—St. Jacques.....438
Libraries, Institution, Manual for—Scott (Bk. Rev.).....155
Libraries, Nebraska State Institution, During 1916—Williams.....297
Library, Hospital, Again—Jones (Corr.).....73
Library, Institutional, Story of—Burgoyne.....251
Limousine Ambulance, New Type of.....199
Linoleum and Imitation Leather—Rogers.....210
Linoleum, Methods of Overcoming Bulging of (Q. & A.).....68
Luncheon System, School, Cooperative, of the Philadelphia Board of Public Education—Smedley.....136
Luncheons for Schools; see School Luncheons.
Lyons Milk Urn.....441

M

Madagascar, Creation of Hospitals in, by General Gallieni (Ab.)—d'Anfreville de la Salle.....364
Mademoiselle Miss (Bk. Rev.).....236
Magnifier, Binocular, New.....79
Manila Bay—Brush (Imagination in the Hospital) (Ed.).....272
Manual for Institution Libraries—Scott (Bk. Rev.).....155
Maria Schroeder Hospital, Guam; see U. S. Naval Hospital, Guam.. 16
Massachusetts, Movement Against Tuberculosis in (Ab.)—Bowditch..127
Massachusetts State Infirmary for Syphilis at Tewksbury (Ab.)—Lewis.....363
Mastoid Operations, Protective Shield for Retaining Dressings After. 78
Maternal Assistance, Institution of, in Bologna (Ab.)—Finizio....128
Maternity Lectures for Chinese Mothers-in-Law.....248
Mats, St. Anthony.....428
Medical Education in Hospital (Ab.)—Holmes.....214
Medical Men, Careers for.....226
Medical School, Modern—Its Relation to the Hospital and to the Medical Profession..... 46
Medical Service and Health, Urban Community Plan for—Armstrong and Berkowitz.....309
Medical Staff, see Staff.
Memoirs of a Physician—Veressayev (Bk. Rev.).....303
Men's Health Exhibit of New York Social Hygiene Society—Osborne.....139
Mental Defectives; see Defectives and Subnormals:
Mental Diseases, Diversional Therapy in (Ab.)—Robinson.....129
Mental Diseases, Hospitals for; see Insane, Hospitals for.
Mental Hospital, Occupation Therapy in—Ruggles.....404
Mental Hygiene and Occupation.....397
Mental Hygiene, National Committee on.....296
Mental Hygiene, What State Hospital Can Do in (Ab.)—Russell....437
Mental Tests for Candidates for Employment (Ab.)—Rossy..... 45
Medical School, Modern—Its Relations to the Hospital and to the Medical Profession (Ab.)—Blumer..... 46
Mexico, City of, Royal Hospital for Indians of (Ab.)—de la Fuente..213
Michael Reese Hospital, Occupational Therapy in.....425
Michigan, Tuberculosis Survey in.....188
Microtome, Automatic Feed Freezing.....366
Milford County Hospital, Milford, Mass. (Story of a New England County Hospital)—French..... 26
Military Hospitals; see Army Hospitals, War Hospitals.
Military Surgeons, Prizes Awarded by.....164
Military Units, Red Cross.....433
Milk Urn, Lyons.....441
Mlk, Skim; see Skim Milk.
Mining Co., Homestake, Lead, S. D., Welfare Work of the—Clough. 74
Minneapolis Health and Happiness Week.....124
Minnesota, Collection of Hospital Fees in.....350
Minnesota, County Tuberculosis Sanatoriums in—Bosworth, Sund and Dunham.....182
Minnesota Hospital Association, Formation of.....435
Minnesota, Syphilis in (Ab.)—Irvine.....363
Minnesota's Work in Tuberculosis (Ed.).....200
Modeling and Drawing, Therapeutic Value of—Barton.....399
Morris Chairs for Wards (Q. & A.).....361
Mothers, Lodging of, in Hospitals With Sick Children (Q. & A)..149
Motion Study for Surgeons.....164
Motor Ambulances; see Ambulances, Motor.
Muhlenberg Hospital, Plainfield, N. J. (with plans)—Hubbard.... 1
Muirdale, Occupational Therapy at—Horner.....415
Municipal Hospital Law Asked by Northwestern Nebraska Medical Society.....199
Municipal Tuberculosis Diagnostic Stations, of Chicago, Proposed...209

N

National League of Nursing Education, 1917 Meeting of.....430
National Organization of Public Health Nursing, 1917 Meeting of..430
Naval Hospital, United States, Guam.....16
Navy's First Complete Hospital Ship.....34
Nebraska State Institution Libraries During 1916—Williams.....297
Necropsies, Value, Methods of Obtaining, and Protection of the Hospital—Winternitz..... 36
Neurologists and Alienists, Meeting of.....358
New England County Hospital (Milford, Mass.)—French..... 26
New York Association of Dietitians.....435
New York City Institutions, Occupational Therapy in—Johnson....414
New Year's Greeting—Goldrich.....49
New York Building Tuberculosis Hospitals.....307
New York Committee on After-Care of Infantile Paralysis, Standards for Clinics.....115
New York Dietitians Organize.....227
New York Edison Company, Welfare Work of.....266
New York Health Department Employees, Routine Physical Examination for.....106
New York Hospital, Clinical Clerkships in First Surgical (Cornell) Division (Ab.)—Lee.....129
New York Social Hygiene Society, Recent Public Health Activities of—Osborne.....139
New York State, General Hospitals of, Treatment of Venereal Diseases in (Ab.)—Weber.....214
Noise Nuisance and Hospitals—Bacon (Corr.).....375
Nopeming Hospital for Tuberculosis, Duluth, Minn. (with plan)—Laird and Sullivan.....189
Northwestern Nebraska Medical Society Petitions Legislature for Municipal Hospital Legislation.....199
Nurse Anesthetist.....289
Nurse, Woman as, in Time of War (Ab.)—Fromaget.....214
Nurses and Factory Labor—Bacon (Corr.).....299
Nurses' Association, American, 1917 Meeting of.....430
Nurses' Associations, American, Joint Annual Convention of.....356
Nurses, Clinical Laboratory Technic for—Gibson..... 50
Nurses, Clinical Laboratory Technic for—Gibson (Bk. Rev.)..... 81
Nurses, Controversy Concerning the Number of, in a Hospital (Ab.).130
Nurses, Eight-Hour Law for (The Nurse—Laborer or Professional?).....269
Nurses, Eight Hours for (Ed.).....271
Nurses, Ethics for, Studies in—Aikens (Bk. Rev.).....81
Nurses' Home, Battle Creek Sanitarium.....147
Nurses in Small Community Hospital—Hornsby.....185
Nurses, Physics and Chemistry for—Bliss and Olive (Bk. Rev.).... 82
Nurses, Pupil, Psychology for.....429
Nurses, Registration of, Reciprocity in—Bahn..... 51
Nurses, Samoan, Graduation of the First Class of..... 31
Nurses, Studies in Ethics for—Aikens (Bk. Rev.)..... 81
Nurses, Training of, in China.....265
Nurses, Visiting French, and the Sanatorium Apartments.....393
Nursing Conditions in Java.....431
Nursing Education; see Training Schools.
Nursing Education, National League of, 1917 Meeting of.....430
Nursing, Home, and First Aid, Teaching of—Stewart.....215
Nursing Law, West Virginia's New—Clark.....135
Nursing Manual for Nurses and Nursing Orderlies—Fitz Williams (Bk. Rev.).....303
Nursing Organizations in United States, Their Origin, Purpose, and Some of Their Results—Pfefferkorn.....131
Nursing Organizations, Three National, Annual Convention of.....284
Nursing Organizations, Three National, 1917 Convention of.....430
Nursing, Public Health; see Public Health Nursing.
Nursing, Public Health (Prenatal Work).....386
Nursing, Surgical and Gynecological—Parker and Breckenridge (Bk. Rev.)..... 82

O

Obscurity of Disease a Spur to Success in Diagnosis—Ferris.....222
Obstetrics for Chinese Mothers-in-Law.....248
Occupation, Diseases of, and Vocational Hygiene—Kober and Hanson (Bk. Rev.).....156
Occupational Diseases and the Physician (Ed.).....118
Occupational Diseases, Two New Clinics for (Rush Medical and Union Hospital).....154
Occupational Therapy; see also Handicapped, Occupations for.
Occupational Therapy
Cook County Tuberculosis Hospital, Oak Forest, Ill., Graduated Labor in—Bailey.....377
Criminals, Insane, Work in Treatment of—Bowers.....406
Dementia Precox, Occupational Therapy in—Mabie.....417
General Hopital (Michael Reese, Presbyterian, and Cook County), Occupational Therapy in.....425
Handicapped, Remunerative Occupations for—Hall.....383
History of Occupational Therapy—Dunton.....380
Inoculation of the Bacillus of Work—Barton.....399
Insane, Beneficial Effects of Occupational Therapy for—Clark....392
Insane, Hospitals for, Occupation Therapy in—Ruggles.....404
Mental Hygiene and Occupation—Thomson.....397
Muirdale, Occupational Therapy at—Horner.....415
New York City Institutions, Occupational Therapy in—Johnson..414
Potteries of Arequipa Sanatorium—Brown.....394
Principles, Some, of Occupational Therapy—Upham.....409
Tuberculosis, Work Essential to Cure in—Brown.....405
Tuberculous Patients, Occupation and Diversion for—Laird.....387
Occupational Therapy, National Society for Promotion of, Organization of.....356
Occupational Therapy Number (Ed.).....342, 422
Occupations for the Handicapped; see Handicapped, Occupations for.
Occupations for the Tuberculous (Home Treatment for the Tuberculous)—Hochhauser.....207
Ohio, Dietetics in.....227
Ohio Home Economics Meeting, Report of..... 57
Ohio Hospital Association, Meeting of.....358
Ohio, Prevention of Blindness in—Stewart.....219
Ohio, Status of Dietitian in—Upham.....229
Oklahoma Hospital, Tulsa, Okla. (with plans)—Clinton.....333
Oleomargarine, Useful and Economical Substitute for Butter—Street.....195
Ontario, Care of Mental Defectives in.....350
Open-Air Hall, Hospital Experience With (Ab.)—LeRutte.....127
Operating Lamp, Safety.....442
Operating Room Floors (Q. & A.).....149
Operating Rooms, Lumbered Up (Q. & A.).....70
Organization of Small Community Hospital—Hornsby.....110
Organizations, National, and Their Programs (Ed.).....340
Organizers, Don'ts for.....226
Orthopedic Hospitals; see also Crippled Children.
Orthopedic Hospitals
Convalescent Home for Poliomyelitis.....247
Fordham Hospital, New York, Tent for Poliomyelitis Treatment..330
Hospital for Deformities and Joint Diseases, New York..... 83
Orthopedic Surgery for Nurses—Berry (Bk. Rev.).....236
Ostermoor Sanitary Sheeting.....367

P

Paint, Method of Saving (Q. & A.)..... 68
Paint, Peeling of (Q. & A.).....148
Paralysis, Infantile; see Poliomyelitis.
Parks, Hospitals Facing (Ed.).....342
Patient and Hospital, Relation of.....301

Patients, Caring for, at Home and in Hospitals (Ab.)—Wortman... 47
Patients, Hospital, Interpreters for (Q. & A.)....361
Peking, Central Hospital of—Wu....241
Pencils and Penholders, Economy in (Hint)—Bacon....376
Pennsylvania Hospitals, Certain, State Aid Withdrawn From....125
Pennsylvania Hospitals Refused Aid....233
Pennsylvania, Lack of Hospitals for Insane Epileptics in....163
Pennsylvania, Rural, Hospital Organization in—Foss....275
Pharmacy, Hospital, in Stettin, Organization of (Ab.)—Derlin....213
Philadelphia Board of Public Education, Cooperative School Luncheon System of—Smedley....136
Philippine General Hospital, Manila (with plans)—Musgrave....165
Phthisis; see Tuberculosis, Pulmonary.
Physical Examination of Employees, Routine, in New York Health Department....106
Physicians, Memoirs of—Veressayev (Bk. Rev.)....303
Physicians, Careers for....226
Physics and Chemistry for Nurses—Bliss and Olive (Bk. Rev.)... 82
Poison, Fly, and the Baby....439
Poliomyelitis Cases, After-Care of (Ab.)—Bartine....128
Poliomyelitis Clinics, Standards for....115
Poliomyelitis, Convalescent Hospital for (How a Real Hospital Started and Grew)—Wight....247
Poliomyelitis, Preparations for Treatment of, at Hospital for Deformities and Joint Diseases—Craiger and Heidelberg.... 83
Poliomyelitis, Tent Hospital for (Paralyzed Children)—Boorstein...330
Politics in a State Hospital (Ed.)....203
Poor, Cooperative Medical Care of—Small....180
Porto Rico, Hospital Work in Island of—Hildreth....245
Potatoes Luxury in Hospitals....280
Potteries of Arequipa Sanatorium—Brown....394
Power Plant, Economical (Q. & A.)....69
Power Plant, Economics in—Beadle....172
Practitioner's Medical Dictionary—Gould (Bk. Rev.)....155
Prenatal Work, Beneficial Results of....386
Preparedness and Child Labor (Ed.)....423
Preparedness Committee Wants Reports (Ed.)....343
Preparedness, Meeting of Committee on....355
Presbyterian Hospital, Occupational Therapy in....425
Preventive Medicine and Hygiene—Rosenau (Bk. Rev.)....237
Preventorium, Tuberculosis, for Children, Farmingdale, Mass.—Quimby....177
Principles of Occupational Therapy—Upham....409
Proceedings of National Conference of Charities and Correction, at Forty-third Annual Session, 1916 (Bk. Rev.)....155
Psychology for Pupil Nurses....429
Psychopathic Hospital, Yerkes-Bridges Point Scale as Applied to Candidates for Employment at (Ab.)—Rossy.... 45
Psychopathic Hospital (Hospital for Insane, Brockville, Ont., New Reception Building of)—Mitchell....97
Psychopathic Hospitals; see also Insane, Hospitals for.
Psychopathic Patients, Social Service for (Ab.)—Jarrett....438
Public Health Activities, Recent, of the New York Social Hygiene Society—Osborne....139
Public Health Nursing—Gardner (Bk. Rev.)....237
Public Health Nursing Course at Battle Creek....280
Public Health Nursing, National Organization for—Crandall....133
Public Health Nursing, National Organization of, 1917 Meeting of..430
Public Health Protection, American—Hemenway (Bk. Rev.)....156
Public Health Service Wants More Trained Medical Officers....226
Pulmotor, Portable....80
Pure Foods—Olsen (Bk. Rev.)....236

R

Rake Knitting and Its Special Adaptation to Invalid Workers (Bk. Rev.)—Tracy....439
Receiving Hospitals
Detroit Receiving Hospital.... 96
Hospital for Insane, Brockville, Ont., Reception Building of.... 97
Reciprocity (in registration of nurses), Present and Future Aspects of—Bahn.... 51
Red Cross Hospital Ship "Been Hoa," French (Ab.)—Koning.... 47
Red Cross Hospital Train, German—Wright....328
Red Cross Man, Rhymes of—Service (Bk. Rev.)....236
Red Cross Military Units....433
Refrigerator, Suggestions About Building a.... 56
Reknes Sanatorium, Researches on the Presence of Virulent Tubercle Bacilli in the Air and Dust of Wards of (Ab.)—Kaurin.... 46
Report, Annual (Q. & A.)....150
Report, Annual, Form of, for Cost Accounting....120
Report, Annual, Meat From (Ed.)....203
Residences, Old, for Hospital Purposes (Ed.).... 32
Rhymes of a Red Cross Man—Service (Bk. Rev.)....236
Robertson Vacuum Bottle.... 78
Roentgen Ray; see X-Ray.
Rounds, Making, an American Custom....147
Royal Hospital for Indians of the City of Mexico (Ab.)—de la Fuente....213
Rugs, St. Anthony....428
Rush Medical College, Clinic on Industrial Medicine and Surgery at..154

S

St. Anthony Mats....428
St. Johns Hospital, 1816-1916 (Ab.)....364
St. Joseph's Hospital, Kansas City, Mo.—Griffith.... 10
St. Luke's Hospital, Spokane, Wash., Burns....224
Sailors and Soldiers, Disabled, Education of Left Hand of (Ab.)—Hutt....438
Salaries in Hospitals (Q. & A.).... 69
Salesman and the Superintendent (Ed.)....117
Salvarsan Injection, Intravenous, Apparatus for—Kaufman.... 79
Samoan Nurses, Graduation of First Class of.... 31
San Diego Claims First Diagnosis Hospital....343
Sanatorium Apartments and the French Visiting Nurses....393
Sanatorium Diagnosis, Team-Work in (Ab.)—Drake....127
Sanatorium Treatment of Industrial Patients....393
Sanatoriums, Diversion Therapy in (Ed.)....341
Sanatoriums for Tuberculous, State Aid for (Ab.)—Bracken.... 46
Sanitary Stations and Hospitals (Ab.)—Roux....364
Saw, Hand-Driven Circular, for Cutting Bone Transplants, Etc.....440
School Clinic for Subnormal Children....92
School Entrance, Health Examination at....360
School Luncheon System, Cooperative, of the Philadelphia Board of Public Education—Smedley....136
Shaw-Mason Bone Saw....440
Sheeting, Ostermoor Sanitary Protective....367
Shield, Protective, for Retaining Dressings After Mastoid Operations. 78
Shoe Machinery Company, United, Welfare Work of—Walsh....141
Sicher & Co., Social Service in Factory of—Hill....351
Sickness Surveys, Plea for—Goldwater (Ed.)....270
Side-Stepping Ill Health—Bowers (Bk. Rev.)....236
Signal System, Best (Q. & A.)....148
Sisters, Contribution of, to Team-Work—Esperance....276
Skim-Milk as Food—Street....253
Smith Spotlight....369
Social Hygiene, Dispensaries of, and for the Prevention of Tuberculosis (Ab.)....128
Social Hygiene, Hospital, for Children (Ab.)—Chapin....438
Social Hygiene Society, New York, Recent Public Health Activities of—Osborne....139
Social Service Cases, Intensive Group of (Ab.)—Jarrett....127
Social Service for Psychopathic Patients (Ab.)—Jarrett....438
Soldiers and Sailors, Disabled, Education of Left Hand of (Ab.)—Hutt....438
Soldiers, Disabled Canadian, Vocational Training for....424
Splint, Wright....305
Spokane Hospital Burns....224
Spotlight, Smith....369
St., names beginning with; see as if spelled Saint.
Staff, Autocrat of (Ed.)....202
Staff Conference, Surgical (Ab.)—Adair.... 47
Staff, Hospital, Full-Time Physicians on, Saving in....161
Staff in a Small Hospital (Q. & A.)....148
Staff in a Small Hospital (Ed.).... 33
Standardization Articles Postponed—Other Last-Minute Notations (Ed.)....422
Standardization of Hospitals—Comment on Classification—Hornsby..338
Standardization of Hospitals—Introduction and Classification—Hornsby....256
Standardizing Hospitals—Hornsby (Ed.)....271
State Hospital, Politics in (Ed.)....203
State Hospital, What It Can Do in Mental Hygiene (Ab.)—Russell.437
Sterilization, Facts and Fallacies of—Clark.... 13
Sterilizing Apparatus, Year's Progress in Construction of, by American Manufacturers....157
Sterilizing Outfit for Hypodermic Syringes....441
Sterilizing Outfit, Hypodermic, Vest-Pocket....366
Stettin, Hospital Pharmacy in, Organizing of (Ab.)—Derlin....213
Still, Acme Water....366
Stomach Lavage, Feeding, and Aspirating Tube....368
Stucky Protector Shield.... 78
Subnormal Children, School Clinic for.... 92
Subnormals; see also Defectives.
Superintendent and the Salesman (Ed.)....117
Superintendent, Front Door (Ed.)....202
Superintendent, Standards for (Hint)....162
Surgeons; see also Military Surgeons.
Surgeons, Motion Study for....164
Surgery, Orthopedic, for Nurses—Berry (Bk. Rev.)....236
Surgical and Gynecological Nursing—Parker and Breckenridge (Bk. Rev.).... 82
Surgical Hospital, The Mobile, "City of Milan" (Ab.)—Solaro....130
Surgical Hospitals
Immanuel Deaconess Surgical Hospital, Omaha, Neb 336
Surgical Section (Red Cross Military Units)....433
Surgical Staff Conference (Ab.)—Adair.... 47
Surgical Technic and Bacteriology for Nurses—Stoney (Bk. Rev.)..237
Susana Hospital, Guam; see U. S. Naval Hospital, Guam....16
Suture Manufacture in America—Rogers....408
Sweet Eye Localizer....240
Syphilis in Minnesota (Ab.)—Irvine....363
Syphilitic, What State Is Doing for, at State Infirmary at Tewksbury, Mass. (Ab.)—Lewis....363
Syringe, Urethral....305
Syringes, Hypodermic, Sterilizing Outfit for....441

T

Team-Work; see also Diagnosis, Group.
Team-Work, Contribution of Chaplain to—Tracy....122
Team-Work, Contribution of Intern to—Beckman.... 43
Team-Work, Contribution of Sisters to—Esperance....276
Telephone Company, Cincinnati & Suburban, Welfare Work of—McComas.... 75
Temporary Convalescent Hospital of the Day Home and School for Crippled Children, New York—Wight....247
Tent Hospital for Paralyzed Children—Boorstein....330
Tewksbury, Mass., State Infirmary for Syphilis and Gonorrhea (Ab.)—Lewis....363
Thermometer, Clinical, as a Carrier of Infection (Ab.)—Martocci-Pisculli.... 47
Tire Factory, Industrial Service in—Lee....353
Trachoma Hospitals in the Mountain Region of the South.... 31
Train, Hospital; see Hospital Train.
Training School and Hospital, Relation of Dietitian to—Atwood....285
Training School, Bacteriology in Curriculum of the—Van de Vrede.. 52
Training School, Relation of, to Hospital—Warner....344
Training Schools, Inspection of—Harmer....281
Treasury Department Employees, Eye Strain in....301
Trocar, Nonleakable—Kells....368
Tubercle Bacilli, Virulent, Not Found in Air and Dust of Wards of Reknes Sanatorium (Ab.)—Kaurin.... 46
Tuberculin Dispensary, The (Ab.)—Newton....127
Tuberculosis, Campaign Against (Suggested Aid for Arrested Cases) (Ab.)—Vogel....211
Tuberculosis, Clinical—Pottenger (Bk. Rev.)....364
Tuberculosis Diagnostic Stations, Proposed Municipal, in Chicago....209
Tuberculosis Dispensary of Venice, Work of (Ab.)....212
Tuberculosis Dispensary, Practical Considerations on Work at (Ab.)—Ellis....212
Tuberculosis, Employment of Persons in Arrested Stage of (Ab.)—Ford....130
Tuberculosis Hospital at Garbagnati, Work of Construction of (Ab.).212

Tuberculosis Hospitals, More, Plan of State Department of Health for (Ab.)—Kelley....212
Tuberculosis Hospitals
Cook County Tuberculosis Hospital, Oak Forest, Ill.—Bailey....377
Nopeming Hospital for Tuberculosis at Duluth, Minn.—Laird and Sullivan....189
Tuberculosis Hospitals, New York Building....307
Tuberculosis Hospitals; see also Tuberculosis Sanatoriums.
Tuberculosis, Minnesota's Work in (Ed.)....200
Tuberculosis, Movement Against, in Massachusetts (Ab.)—Bowditch..127
Tuberculosis Nurse, Her Function and Her Qualifications—Lamotte (Bk. Rev.)....304
Tuberculosis Organizers, Advice to....226
Tuberculosis Prevention, Dispensaries of Social Hygiene and for (Ab.)....128
Tuberculosis, Prevention of, in War....419
Tuberculosis Preventorium for Children, Farmingdale, N. J.—Quimby....177
Tuberculosis Problem, Ever Changing Yet Ever the Same (Ed.)....201
Tuberculosis, Pulmonary, Cost of Treating, With Special Reference to Wage-Earners and Communities (Ab.)—Russell....211
Tuberculosis, Pulmonary, Results Obtained by Class Method of Home Treatment in (Ab.)—Pratt....211
Tuberculosis Sanatoriums, County, in Minnesota—Bosworth, Sund and Dunham....182
Tuberculosis Sanatoriums, Descriptions of
Nopeming Hospital for Tuberculosis at Duluth, Minn....189
Tuberculosis League of Pittsburgh, New Children's Building of..312
Tuberculosis Preventorium for Children, Farmingdale, N. J....177
Tuberculosis Sanatoriums, State Aid for (Ab.)—Bracken....46
Tuberculosis Survey in Michigan....188
Tuberculosis, Work Essential to Cure in—Brown....405
Tuberculous, Federal Aid for—Would Kent Bill Help? (Ab.)—Vaile..129
Tuberculous, Home Treatment (and Occupations) for—Hochhauser..207
Tuberculous, Migration of, and the Kent Bill (Ab.)—Newton....437
Tuberculous Patients, Occupation and Diversion for—Laird....387
Tuberculous Patients, Industrial, Sanatorium Treatment of....393
Typhoid Epidemic, Institutional, Combated by Vaccination (Ab.)—Newcomb....128

U

Union Hospital, New York, Department of Occupational Diseases at..154
United Shoe Machinery Company, Agricultural Welfare Work of—Walsh....141
United States Government's Method of Buying Hospital Supplies—Fawcett....372
United States Naval Hospital on the Island of Guam (with plan)—Johnson....16
Urethral Syringe, Air-Pressure....305

V

Vaccination, Institutional Typhoid Epidemic Combated by (Ab.)—Newcomb....128
Vacuum Bottle, New—Robertson....78
Vacuum Bottles, Cleaning of (Hint)....162
Venereal Diseases, Attitude of Hospital Toward (Ab.)—Clarke....363
Venereal Diseases, Clinics for—Why We Need Them—How to Develop Them—Snow....54
Venereal Diseases, Dispensary Treatment for, in Lakeside Hospital, Cleveland, Ohio—Tupper....223
Venereal Diseases, Treatment of, in General Hospitals of New York State (Ab.)—Weber....214
Venice, Tuberculosis Dispensary of, Work of (Ab.)....212
Ventilator, Berry Window....304
Vim Alco (Alcohol) Hypodermic Sterilizing Outfit....366
Vim Sterilizer Jar....441
Visiting Nurses, French, and Sanatorium Apartments....393
Visitors, Too Many (Q. & A.)....70
Vocational Hygiene and Diseases of Occupation—Kober and Hanson (Bk. Rev.)....156
Vocational Training for Disabled Canadian Soldiers....424

W

Wage-Earners; see also Workmen.
Wage-Earners and Community, Cost of Treating (Ab.)—Russell....211
Wall Stains, Chemical (Q. & A.)....381
War and the Hospital World (Ed.)....420
War, Child Labor During....427
War Hospital Notes (For. Corr.)....152, 225
War Hospitals; see also Army Hospitals.
War, Prevention of Tuberculosis in....419
War, Woman as a Nurse in (Ab.)—Fromaget....214
Wassermann Test, Blood Needle for....442
Water Still, Acme....366
Watertown State Hospital, Preliminary Welfare Report of Cases Recently Discharged From (Ab.)—Causey....214
Wayne Hospital, Wayne, Neb. (with plan)—Lutgen....101
Wayside Flowers of Summer (Bk. Rev.)—Keeler....439
West Virginia Hospital Association, New Officers of....203
West Virginia's New Nursing Law—Clark....135
Western Minnesota Hospital (A Small Hospital That Pays)—Oliver..163
Window Ventilator, Berry....304
Woman as a Nurse in Time of War (Ab.)—Fromaget....214
Women, Jubilee of New Hospital for....413
Work Essential to Cure in Tuberculosis—Brown....405
Work, Inoculation of Bacillus of—Barton....399
Work in the Treatment of Insane Criminals—Bowers....406
Work Therapy; see Occupation Therapy.
Workmen, Injured, Treatment of; see also Industrial First Aid.
Workmen, Treatment of Injured, in Large Hospitals (Ab.)—Kortewег....128
Worry a Form of Waste Motion....164
Wound Sterilization, by Means of Dakin's Solution, Carrel Apparatus for....367
Wright Splint....305

X

X-Ray Apparatus, Progress in Construction of....238
X-Ray Department of Cook County Hospital—Blaine....321
X-Ray Research and Hospital Work....295

Y

Yerkes-Bridges Point Scale as Applied to Candidates for Employment at the Psychopathic Hospital (Ab.)—Rossy....45

DEPARTMENT INDEX

AUTHORS—
(Including authors of books reviewed and articles abstracted, designated by Bk. Rev. and Ab., respectively.)
Adair, Frank E.—Surgical Staff Conference (Ab.)....47
Aikens, Charlotte A.—Studies in Ethics for Nurses (Bk. Rev.)..81
d'Anfreville de la Salle—Medical Creation of General Gallieni (Ab.)....364
Armstrong, Donald B., and Berkowitz, J. H.—Urban Community Plan for Health and Medical Service....309
Atwood, A. T.—The Problem of the Dietitian and Her Relation to the Hospital and the Training School....285
Bacon, Asa S.—Economy in Pencils and Penholders (Hint)....376
Bacon, Asa S.—Hospitals and Noise Nuisance (Corr.)....375
Bacon, Asa S.—Nurses and Factory Labor (Corr.)....299
Bacon, Asa, and Smith, Fred M.—The Diagnosis of Heart Cases (Electrocardiograph)....279
Bahn, C. A.—The Present and Future Aspects of Reciprocity....51
Bailey, E. H. S.—The Source, Chemistry, and Use of Food Products (Bk. Rev.)....81
Bailey, Henry L.—The Cook County Tuberculosis Hospital....377
Bartine, Oliver H.—After-Care of Infantile Paralysis Cases (Ab.)....128
Barton, George Edward—Inoculation of the Bacillus of Work..399
Beadle, R. C.—How Much Coal Does a Patient Cost?....172
Beckman, E. H.—What the Intern Should Contribute to the Team-Work....43
Berkowitz, J. H., and Armstrong, Donald B.—Urban Community Plan for Health and Medical Service....309
Berry, John McWilliams—Orthopedic Surgery for Nurses (Bk. Rev.)....236
Birtch, Fayette Watt—Group Study—A Plea for Medical Cooperation in Hospitals (Ab.)....213
Bishop, H. E.—Fumigation in Hospitals (Corr.)....375
Blaine, Edward S.—X-Ray Department of Cook County Hospital....321
Bliss and Olive—Physics and Chemistry for Nurses (Bk. Rev.)..82
Blumer, George—The Modern Medical School—Its Relations to the Hospital and to the Medical Profession (Ab.)....46
Boorstein, Samuel W.—Tent Hospital for Paralyzed Children...330
Bosworth, Robinson, and Sund & Dunham—County Tuberculosis Sanatoriums in Minnesota....182
Bowditch, Vincent Y.—The History of the Growth of the Anti-Tuberculosis Movement in Massachusetts and the Lessons to Be Learned Therefrom (Ab.)....127

AUTHORS—Continued.
Bowers, Paul E.—Clinical Studies on the Relationship of Insanity to Crime (Bk. Rev.)....365
Bowers, Paul E.—Work in the Treatment of Insane Criminals..406
Bowers—Side-Stepping Ill Health (Bk. Rev.)....236
Bracken, H. M.—State Aid for Sanatoria for the Tuberculous (Ab.)....46
Breckenridge and Parker—Surgical and Gynecological Nursing (Bk. Rev.)....82
Brown, Philip King—The Potteries of Arequipa Sanatorium....394
Brown, W. T.—Work Essential to Cure in Tuberculosis....405
Buck, Mertice M. C., and Hall, Herbert J.—Handicrafts for the Handicapped (Bk. Rev.)....439
Burgoyne, Marguerite H.—Institutional Library, Burke Foundation, White Plains, N. Y....251
Burr, Charles W.—State Care of the Indigent Insane (Ab.)....127
Carlson, Anton Julius—Control of Hunger in Health and Disease (Bk. Rev.)....155
Cary, Harold—Keeping Employees Happy....232
Causey, Frederick A.—A Preliminary Welfare Report of Cases Recently Discharged from the Watertown State Hospital (Ab.)....214
Caverly, Charles S.—The Value of Isolation Hospitals for Small Cities (Ab.)....129
Cervin, Olof Z.—Immanuel Deaconess Surgical Hospital, Omaha, Neb....336
Chapin, Henry Dwight—Hospital Social Service for Children (Ab.)....438
Chapin, M. K.—The Occupational Therapy Number (Ed.)....422
Clark, A. Wayne—Some Facts and Fallacies of Sterilization... 13
Clark, Fred P.—The Beneficial Effects of Work for the Insane.392
Clark, Pliny O.—West Virginia's New Nursing Law....135
Clarke, C. K.—Attitude of Hospital Toward Venereal Diseases (Ab.)....363
Clinton, Fred S.—Oklahoma Hospital, Tulsa, Okla....333
Clough, F. E.—Welfare Work of the Homestake Mining Company, Lead, S. D.... 74
Cosgrove, E. M.—Drumcondra Hospital: A Short History (Ab.).364
Craiger, Montrose, and Heidelberg, Max G.—New Building for the Hospital for Deformities and Joint Diseases.... 83
Crandall, Ella Phillips—The National Organization for Public Health Nursing....133
Davis, Michael M., and others—Dispensary and Out-Patient Work....144
Della Vida, M. L.—Observations on Preventive Measures Against Cholera in Military Isolation Hospital (Ab.)....362

AUTHORS—Continued.
Derlin, L. Organization of the Hospital Pharmacy in Stettin (Ab.) 213
Detroit Home Nursing Association—How Two Thousand Detroit Mothers Were Cared for in Childbirth 290
Drake, Daniel E.—A New Development in Sanatorium Treatment (Ab.) 127
Dretzka, John—Work of the Detroit Receiving Hospital 96
Duncan, Frances—The Joyous Art of Gardening (Bk. Rev.) 439
Dunham and Sund, and Bosworth—County Tuberculosis Sanatoriums in Minnesota 182
Dunton, William Rush, Jr.—History of Occupational Therapy 380
Eichel, Otto R.—A Manual of Fire Prevention and Fire Protection for Hospitals (Bk. Rev.) 81
Ellis, Henry A.—Practical Considerations on the Conduct of Work at a Tuberculosis Dispensary (Ab.) 212
Esperance, Mother M.—What the Sisters Should Contribute to the Team-Work 276
Fawcett, Waldon—How United States Government Buys Hospital Supplies 372
Fawcett, Waldon—The Cost of Operating a Motor Ambulance 21
Feer, E.—Prevention of Transmission of Infectious Diseases in Hospitals (Ab.) 362
Ferris, Albert Warren—Baths and Bathing 359
Ferris, Albert Warren—Obscurity of Disease a Spur to Success in Diagnosis 222
Ferris, Albert Warren—Prime Importance of Diet 66
Field Editor of "The Modern Hospital"—A Sanatorium With a Homelike Atmosphere 249
Finizio, G.—The Institution of Maternal Assistance in Bologna (Ab.) 128
Fitz Williams, Duncan C. L.—A Nursing Manual for Nurses and Nursing Orderlies (Bk. Rev.) 303
Ford, James S.—Employment of Persons in the Arrested Stage of Tuberculosis (Ab.) 130
Foss, Harold L.—Hospital Organization in Rural Pennsylvania 275
Fowler, J. W.—Solving the Problem of the High Cost of Living in the Hospital 90
Frank, Louis J.—Remodeling Beth Israel Hospital 204
French, J. M.—The Story of a New England County Hospital (Milford) 26
Fromaget, C.—Making Use of Woman as a Nurse in Time of War (Ab.) 214
Fuente, J. M. de la—The Royal Hospital for Indians of the City of Mexico (Ab.) 213
Gardner, Mary Sewall—Public Health Nursing (Bk. Rev.) 237
Gibson, Anna L.—Clinical Laboratory Technic for Nurses, Paper 3 50
Gibson, Anna L.—Clinical Laboratory Technic for Nurses (Bk. Rev.) 81
Glaser—Bernese Institution for Treatment of Alcoholics (Ab.) 364
Goldwater, S. S.—A Plea for Sickness Surveys (Ed.) 270
Goodrich, Annie W.—A New Year's Greeting 49
Gould, George M.—Practitioner's Medical Dictionary (Bk. Rev.) 155
Griffith, J. D.—St. Joseph's Hospital, Kansas City, Mo 10
Hall, Herbert J., and Buck, Mertice M. C.—Handicrafts for the Handicapped (Bk. Rev.) 439
Hall, Herbert J.—Remunerative Occupations for the Handicapped 383
Hanson, William C., and Kober, George M.—Diseases of Occupation and Vocational Hygiene (Bk. Rev.) 156
Harmer, Bertha—Inspection of Training Schools 281
Heidelberg, Max G., and Craiger, Montrose—New Building for the Hospital for Deformities and Joint Diseases 83
Hemenway, Henry Bixby—American Public Health Protection (Bk. Rev.) 156
Hildreth, E. Raymond—Hospital Work in the Island of Porto Rico 245
Hill, Claribel G.—Practical Industrial Service 351
Hochhauser, Edward—Home Treatment for the Tuberculous 207
Holmes, C. R.—The Hospital and Medical Education (Ab.) 214
Horner, Rachel—Occupational Therapy at Muirdale 415
Hornsby, John Allan—The Small Community Hospital: The Equipment 29
The Organization 110
Interns, Nurses and Employees 112
Hornsby, John Allan—Standardization of Hospitals: Introduction and Classification 256
Comment on Classification 338
Hornsby, John Allan—Standardizing Hospitals (Ed.) 271
Hubbard, F. J.—A Complete Suburban Hospital—The Muhlenberg 1
Hutt, C. W.—Education of the Left Hand of Disabled Sailors and Soldiers (Ab.) 438
Illinois Society for the Prevention of Blindness—Report for Eight Months from March 1 to October 31, 1916 62
Irvine, H. G.—Syphilis in State of Minnesota (Ab.) 363
Jarrett, Mary C.—Possibilities in Social Service for Psychopathic Patients (Ab.) 438
Jarrett, Mary C.—The Intensive Group of Social Service Cases (Ab.) 127
Johnson, L. W.—United States Naval Hospital on the Island of Guam 16
Johnson, Susan C.—Occupational Therapy in New York City Institutions 414
Jones, Edith Kathleen—The Hospital Library Again (Corr.) 73
Joslin, Elliott P.—The Hospital Dietary 57
Kahn, Morris H.—The Need of a Special Clinic for Cases of Heart Disease (Ab.) 46
Kaufman, Louis Rene—Apparatus for Intravenous Salvarsan Injection 79
Kaurin, E.—Researches on the Presence of Virulent Tubercle Bacilli in the Air and Dust of the Wards of Reknes Sanatorium (Ab.) 46
Keeler, Harriet L.—The Wayside Flowers of Summer (Bk. Rev.) 439
Keith, Charles G.—Boys' Club a Preventive Prescription 370
Kelley, E. R.—The Plan of the State Department of Health for More Tuberculosis Hospitals (Ab.) 212
Kellogg, Harold Ficid, and Mixter, Charles G.—Architecture and Equipment of the Jordan Hospital, Plymouth, Mass 258
Kober, George M., and Hanson, William C.—Diseases of Occupation and Vocational Hygiene (Bk. Rev.) 156

AUTHORS—Continued.
Kobick, Henry G.—Welfare Work of Commonwealth Edison Company 231
Koning—The French Red Cross Hospital Ship "Been Hoa" (Ab.) 47
Korteweg, J. A.—The Treatment of Injured Workmen in Large Hospitals (Ab.) 128
Labbé, M.—Organization and Working of Hospital for Contagious Diseases (Ab.) 362
Laird, Arthur T., and Sullivan, W. L.—Nopeming Hospital for Tuberculosis at Duluth, Minn 189
Laird, Arthur T.—Occupation and Diversion for Tuberculous Patients 387
Lamotte, Ellen N.—The Tuberculosis Nurse, Her Function and Her Qualifications (Bk. Rev.) 304
Lee, Burton James—Clinical Clerkships in The First Surgical (Cornell) Division (Ab.) 129
Lee, R. E.—Industrial Service in Tire Factory 353
LeRutte, J. L.—Hospital Experience With an Open-Air Hall (Ab.) 127
Lewis, Ora Mabelle—What State Is Doing for Syphilitic at State Infirmary at Tewksbury, Mass., Based on Survey of Syphilis and Gonorrhea (Ab.) 363
Lutgen, S. A.—A Small Community Hospital That Meets a Need (Wayne, Neb.) 101
Mabie, Ettabel—Occupational Therapy in Dementia Precox 417
McComas, R. T.—Welfare Work of Cincinnati and Suburban Telephone Company Includes Country Home Where Girls Go to Rest 75
McDill, John R.—American Hospitals in Germany and Austria (Ab.) 46
McJunkin, Frank A.—Hospital Laboratory Methods for Students, Technicians and Clinicians (Bk. Rev.) 156
McMechan, F. H.—American Year Book of Anesthesia and Analgesia (Bk. Rev.) 365
McMurtrie, D. C.—Berlin Institution for Crippled Children (Ab.) 45
Martocci-Pisculli, L.—Clinical Thermometer as a Carrier of Infection (Ab.) 47
Mitchell, J. C.—New Reception Building of Hospital for Insane, Brockville, Ont 97
Mixter, Charles G., and Kellogg, Harold Field—Architecture and Equipment of the Jordan Hospital, Plymouth, Mass 258
Morritt, Walter—Reports of Hospital Economies Desired (Corr.) 375
Musgrave, W. E.—The Philippine General Hospital, Manila 165
Myers, F. C.—Electricity in the Hospital 205
Newcomb, Philip B.—Institutional Typhoid Epidemic Combated by Vaccination (Ab.) 128
Newton, Richard Cole—The Tuberculin Dispensary (Ab.) 127
Newton, Robert J.—Will the Kent Bill Help? (Ab.) 437
Olive and Bliss—Physics and Chemistry for Nurses (Bk. Rev.) .. 82
Oliver, C. I.—A Small Hospital That Pays (Western Minnesota Hospital) 163
Olsen, J. C.—Pure Foods (Bk. Rev.) 236
Osborne, F. J.—Public Health Activities of the New York Social Hygiene Society 139
Parker and Breckenridge—Surgical and Gynecological Nursing (Bk. Rev.) 82
Petersen, T.—Elverum Community Hospital (Ab.) 45
Pfefferkorn, Blanche—Nursing Organizations in the United States 131
Pflaum, A. J.—Hospitals and Suits for Damages 299
Pini, P.—The Italian Hospital in Lugano, Switzerland (Ab.) 212
Pottenger, Francis Marion—Clinical Tuberculosis (Bk. Rev.) 365
Pratt, Joseph H.—Results Obtained by the Class Method of Home Treatment in Pulmonary Tuberculosis During a Period of Ten Years (Ab.) 211
Quimby, J. Palmer—The Tuberculosis Preventorium for Children, Farmingdale, N. J 177
Rankin, W. S.—County Health Administration (Ab.) 130
Robinson, Leigh F.—Diversion Therapy in Mental Diseases (Ab.) 129
Rogers, Allen—Linoleum and Imitation Leather 210
Rogers, Allen—Suture Manufacture in America 408
Rosenau, Milton J.—Preventive Medicine and Hygiene (Bk. Rev.) 237
Rossy, C. S.—Yerkes-Bridges Point Scale as Applied to Candidates for Employment at the Psychopathic Hospital (Ab.) .. 45
Roux, G.—Hospitals and Sanitary Stations (Ab.) 364
Ruggles, A. H.—Occupation Therapy in the Mental Hospital .. 404
Russell, John F.—Cost of Treating Pulmonary Tuberculosis, With Special Reference to Wage-Earners and Communities (Ab.) 211
Russell, William L.—What the State Hospital Can Do in Mental Hygiene (Ab.) 437
St. Jacques, E.—Heliotherapy; the Climatic Station at Leysin, Switzerland (Ab.) 438
Schaefer, Arthur—Health Center Field Work (Ab.) 438
Schulman, M.—Paid Service in Hospitals—Its Advantages Over the Present Free System (Ab.) 212
Scott, Carrie E.—Manual for Institution Libraries (Bk. Rev.) .. 155
Selden, Elizabeth—Some Phases of Home Economics in Hospital Administration (Ab.) 364
Service, Robert W.—Rhymes of a Red Cross Man (Bk. Rev.) ... 236
Shuey, Paul F.; White, William Charles, and Stewart, A. E.—New Children's Building of Tuberculosis League of Pittsburgh 312
Small, W. B.—Cooperative Care of the Indigent Sick 180
Smedley, Emma—The Cooperative School Luncheon System of the Philadelphia Board of Public Education 136
Smith, Fred M. and Bacon, Asa—The Diagnosis of Heart Cases (Electrocardiagraph) 279
Snow, William F.—Clinics for Venereal Diseases—Why We Need Them—How to Develop Them 54
Solaro, G.—The Mobile Surgical Hospital "City of Milan" in the Field (Ab.) 130
Stevens, Edward F.—Labor-Saving Devices in Hospital Equipment (Ab.) 213
Stewart, A. E.; White, William Charles, and Shuey, Paul F.—New Children's Building of Tuberculosis League of Pittsburgh 312
Stewart, Helena R.—The Prevention of Blindness in Obio 219

AUTHORS—Continued.
Stewart, Isabel M.—The Teaching of Home Nursing and First Aid 215
Stoney, Emily A. M.—Bacteriology and Surgical Technic for Nurses (Bk. Rev.) 237
Strauch, August—Care and Asepsis in Hospitals for Infants (Ab.) 362
Street, John Phillips—Gelatin and Jelly Powders 93
Street, John Phillips—Ice Cream—Its Composition, Manufacture, and Value 317
Street, John Phillips—Oleomargarine—A Useful and Economical Substitute for Butter 195
Street, John Phillips—Skim-Milk as Food 253
Sullivan, W. L., and Laird, Arthur T.—Nopeming Hospital for Tuberculosis at Duluth, Minn 189
Sund and Dunham, and Bosworth—County Tuberculosis Sanatoriums in Minnesota 182
Taussig, Frances—Making Dependents Self-Supporting 418
Teller, G. L., and Wesener, J. A.—The Chemical Composition of Commercial Glucose and Its Digestibility 60
Teller, G. L., and Wesener, J. A.—The Chemical Composition of Commercial Glucose and Its Digestibility 138
Thomson, Elnora E.—Occupation and Its Relation to Mental Hygiene 397
Towns, Charles B.—The Sociological Aspect of the Treatment of Alcoholism 103
Towns, Charles B.—Successful Medical Treatment in Chronic Alcoholism 6
Tracy, Frank W.—What the Chaplain Should Contribute to the Team-Work 122
Tracy, Susan E.—Rake Knitting and Its Special Adaptation to Invalid Workers (Bk. Rev.) 439
Tupper, Marguerite—Dispensary Treatment for Venereal Diseases in Lakeside Hospital, Cleveland, Ohio 223
Upham, J. H.—The Relation of the Dietitian in Ohio 229
Upham, Elizabeth G.—Some Principles of Occupational Therapy. 409
Vaile, Gertrude—Federal Aid for Consumptives—Would the Kent Bill Help? (Ab.) 129
Van Blarcom, Carolyn Conant—Report of Illinois Society for Prevention of Blindness, March 1, October 31, 1916 62
Van de Vrede, Jane—Bacteriology in the Curriculum of the Training School 52
van Walsem, G. C.—The Establishment of Barracks for Infectious Diseases in Institutions for Mental Diseases (Ab.) 214
Veressayev, Vikenty—The Memoirs of a Physician (Bk. Rev.) ..303
Vogel, Louis G.—Another Step in the Antituberculosis Campaign (Ab.) 211
Walsh, William H.—Welfare Work in Agriculture—Gardens of the United Shoe Machinery Company 141
Ward, C. E.—Why Fumigation Is Ineffective 115
Warner, A. R.—Relation of Training School to Hospital 344
Watters, L. L.—Emergency Hospitals for Industrial Plants 107
Weber, Joseph J.—Hospital Survey of a Community 99
Weber, Joseph J.—The Treatment of Venereal Diseases in General Hospitals of New York State Outside of New York City (Ab.) 214
Wescner, J. A.—The New Pure-Food Catsup: Or, When Is a Chemical Not a Chemical 227, 288, 349
Wesener, J. A., and Teller, G. L.—The Chemical Composition of Commercial Glucose and Its Digestibility 60, 138
West, F. O.—The Medical Department of a Modern Industrial Plant (Ab.) 129
White, Edna N.—Home Economics in Relation to Hotel Problems 347
White, William Charles; Stewart, A. E., and Shuey, Paul F.—New Children's Building of Tuberculosis League of Pittsburgh 312
Wight, Lucy Osborne—Convalescent Hospital for Poliomyelitis. 247
Williams, Nellie—Nebraska State Institution Libraries During 1916 297
Winternitz, M. C.—Autopsies—Their Value, Methods of Obtaining, and Protection of the Hospital 36
Wortman, J. C.—Caring for Patients at Home and in Hospitals (Ab.) 47
Wright, C. E.—German Red Cross Hospital Train 328
Wright, W. E.—The Institution Athletic Field, Burke Foundation 119
Wu Lien-Teh—Central Hospital of Peking 241

ADMINISTRATION—
Accounting, Hospital, Form of Annual Report for 120
Alcoholism, Chronic, Successful Medical Treatment in—Towns.. 6
Alcoholism, Treatment of, Sociological Aspect of—Towns 103
Ambulance, Motor, Cost of Operating—Fawcett 21
Arequipa Sanatorium, Potteries of 394
Autopsies, Value, Methods of Obtaining, and Protection of Hospital—Winternitz 36
Coal, How Much, Does a Patient Cost—Beadle 172
Community Hospital, The Small—The Equipment—Hornsby 29
Community Hospital, The Small—Interns, Nurses, and Employees—Hornsby 185
Community Hospital, The Small—The Organization—Hornsby...110
Community Plan, Urban, for Health and Medical Service—Armstrong and Berkowitz 309
Cook County Tuberculosis Hospital, Oak Forest, Ill.—Bailey....377
Cost, High, of Living in the Hospital, Solving the Problem of—Fowler 90
County Hospital, New England (Milford, Mass.)—French 26
Detroit Receiving Hospital, Work of—Dretzka 96
Electricity in the Hospital—Peters 205
Electrocardiograph—Bacon and Smith 279
Emergency Hospitals for Industrial Plants—Watters 107
Equipment of Small Community Hospital—Hornsby 29
Fuel Consumers, Types of—Beadle 172
Fumigation, Reasons for Ineffectiveness of—Ward 115
Green Gables (A Sanatorium With a Homelike Atmosphere)—Field Editor 249
Health and Medical Service, Urban Community Plan for—Armstrong and Berkowitz 309
Hospital Supplies, Economy in—Fowler 90
Hospitals, Standardization of: Comment on Classification—Hornsby 338
Hospitals, Standardization of: Introduction and Classification—Hornsby 256

ADMINISTRATION—Continued.
Indiana State Hospital, Occupational Therapy in—Bowers 406
Indigent Sick, Cooperative Care of—Small 180
Interns in Small Community Hospital—Hornsby 185
Library, Institutional, Story of—Burgoyne 251
Medical Service and Health, Urban Community Plan for—Armstrong and Berkowitz 309
Muirdale, Occupational Therapy at—Horner 415
New England County Hospital (Milford, Mass.)—French 26
Nurses in Small Community Hospital—Hornsby 185
Organization of the Small Community Hospital—Hornsby 110
Poliomyelitis, Convalescent Hospital for (How a Real Hospital Started and Grew)—Wight 247
Poliomyelitis, Tent Hospital for (Paralyzed Children)—Boorstein. 330
Poor, Cooperative Medical Care of—Small 180
Porto Rico, Hospital Work in—Hildreth 245
Power Plant, Economies in—Beadle 172
Standardization of Hospitals: Comment on Classification—Hornsby 338
Standardization of Hospitals: Introduction and Classification—Hornsby 256
Sterilization, Some Facts and Fallacies of—Clark 13
Team-Work, Contribution of Chaplain to—Tracy 122
Team-Work, Contribution of Intern to—Beckman 43
Team-Work, Contribution of Sisters to—Esperance 276
Tent Hospital for Paralyzed Children—Boorstein 330
Tuberculosis Preventorium for Children, Farmingdale, N. J.—Quimby 177
X-Ray Department of Cook County Hospital—Blaine 321

AMERICAN HOSPITAL ASSOCIATION—
Bulletin for January 35, 151
Bulletin for February 234
Bulletin for March 274
Bulletin for April 354
Bulletin for May 432
Preparedness, Meeting of Committee on 355

ARCHITECTURE—
Beth Israel Hospital, New York—Frank 204
Chicago Municipal Tuberculosis Diagnostic Stations 209
Chinese, Model Hospital Established and Managed by—Wu 241
Community Hospital, Small, That Meets a Need (Wayne Hospital)—Lutgen 101
Cook County Hospital, X-Ray Department of—Blaine 321
Guam, United States Naval Hospital on Island of—Johnson 16
Hospital for Deformities and Joint Diseases, New Building for—Craiger and Heidelberg 83
Hospital for Insane, Brockville, Ont., New Reception Building of—Mitchell 97
Hospital, Model, Established and Managed by Chinese (Central Hospital of Peking)—Wu 241
Immanuel Deaconess Surgical Hospital, Omaha, Neb.—Cervin.. 336
Indiana State Hospital for Insane Criminals (with plans)—Bowers 406
Jordan Hospital, Plymouth, Mass., Architecture and Equipment of—Mixter and Kellogg 258
Minnesota, County Tuberculosis Sanatoriums in Bosworth, Sund, and Dunham 182
Muhlenberg Hospital, The New—A Complete Suburban Hospital—Hubbard 1
Naval Hospital, United States, on the Island of Guam—Johnson. 16
Nopeming Hospital for Tuberculosis at Duluth, Minn.—Laird and Sullivan 189
Oklahoma Hospital, Tulsa, Okla.—Clinton 333
Peking, Central Hospital of—Wu 241
Philippine General Hospital, Manila—Musgrave 165
Roentgen-Ray Department of Cook County Hospital—Blaine.... 321
St. Joseph's Hospital, Kansas City, Mo.—Griffith 10
Tuberculosis League of Pittsburgh, New Children's Building of—White, Stewart, and Shuey 312
Tuberculosis Sanatoriums, County, in Minnesota—Bosworth, Sund, and Dunham 182
United States Naval Hospital on the Island of Guam—Johnson.. 16
Wayne Hospital, Wayne, Neb.—Lutgen 101
X-Ray Department of Cook County Hospital—Blaine 321

BOOK REVIEWS—
Aikens, Charlotte A.—Studies in Ethics for Nurses 81
American Public Health Protection—Hemenway 156
American Year Book of Anesthesia and Analgesia—McMechan.. 365
Bacteriology and Surgical Technic for Nurses—Stoney 237
Bailey, E. H. S.—The Source, Chemistry, and Use of Food Products 81
Berry, John McWilliams—Orthopedic Surgery for Nurses 236
Bliss and Olive—Physics and Chemistry for Nurses 82
Bowers—Side-Stepping Ill Health 236
Bowers, Paul E.—Clinical Studies on the Relationship of Insanity to Crime 365
Breckenridge and Parker—Surgical and Gynecological Nursing.. 82
Buck, Mertice M. C., and Hall, Herbert J.—Handicrafts for the Handicapped 439
Carlson, Anton Julius—Control of Hunger in Health and Disease 155
Charities and Correction, National Conference of, Proceedings of, at Forty-third Annual Session, 1916 155
Chemistry and Physics for Nurses—Bliss and Olive 82
Clinical Laboratory Technic for Nurses—Gibson 81
Clinical Studies in Relationship of Insanity to Crime—Bowers..365
Clinical Tuberculosis—Pottenger 365
Control of Hunger in Health and Disease—Carlson 155
Crime, Relationship of Insanity to, Clinical Studies in—Bowers..365
Dictionary, Medical, Practitioner's—Gould 155
Diseases of Occupation and Vocational Hygiene—Kober and Hanson 156
Duncan, Frances—The Joyous Art of Gardening 439
Eichel, Otto R.—A Manual of Fire Prevention and Fire Protection for Hospitals 81
Ethics for Nurses, Studies in—Aikens 81
Fire Prevention and Fire Protection for Hospitals, Manual of—Eichel 81
Fitz Williams, Duncan C. L.—Nursing Manual for Nurses and Nursing Orderlies 303
Flowers, Wayside, of Summer—Keeler 439

BOOK REVIEWS—Continued.
Food Products, Source, Chemistry and Use of Bailey..... 81
Foods, Pure—Olsen..... 236
Gardening, Joyous Art of (Bk. Rev.)—Duncan..... 439
Gardner, Mary Sewall—Public Health Nursing..... 237
Gibson, Anna L.—Clinical Laboratory Technic for Nurses..... 81
Gould, George M.—Practitioner's Medical Dictionary..... 155
Gynecological and Surgical Nursing—Parker and Breckenridge.. 82
Hall, Herbert J., and Buck, Mertice M. C.—Handicrafts for the Handicapped..... 439
Handicrafts for the Handicapped—Hall and Buck..... 439
Hanson, William C., and Kober, George M.—Diseases of Occupation and Vocational Hygiene..... 156
Hemenway, Henry Bixby—American Public Health Protection..156
Hospital Laboratory Methods for Students, Technicians, and Clinicians—McJunkin..... 156
Hospitals, Fire Prevention and Fire Protection for, Manual of—Eichel..... 81
Hunger, Control of, in Health and Disease—Carlson..... 155
Hygiene and Preventive Medicine—Rosenau..... 237
Ill Health, Side-Stepping—Bowers..... 236
Insanity, Relationship of, to Crime, Clinical Studies in—Bowers..365
Joyous Art of Gardening—Duncan..... 439
Keeler, Harriet L.—The Wayside Flowers of Summer..... 439
Knitting, Rake, and Its Special Adaptation to Invalid Workers Tracy..... 439
Kober, George M., and Hanson, William C.—Diseases of Occupation and Vocational Hygiene..... 156
Laboratory Methods, Hospital, for Students, Technicians, and Clinicians—McJunkin..... 156
Laboratory Technic, Clinical, for Nurses—Gibson..... 81
Lamotte, Ellen N.—The Tuberculosis Nurse, Her Function and Her Qualifications..... 304
Libraries, Institution, Manual for—Scott..... 155
McJunkin, Frank A.—Hospital Laboratory Methods for Students, Technicians and Clinicians..... 156
McMechan, F. H.—American Year Book of Anesthesia and Analgesia..... 364
Mademoiselle Miss..... 236
Manual for Institution Libraries—Scott..... 155
Memoirs of a Physician Veressayev..... 303
Nurses, Clinical Laboratory Technic for—Gibson..... 81
Nurses, Physics and Chemistry for—Bliss and Olive..... 82
Nurses, Studies in Ethics for—Aikens..... 81
Nursing Manual for Nurses and Nursing Orderlies—Fitz Williams..... 303
Nursing, Public Health—Gardner..... 237
Nursing, Surgical and Gynecological—Parker and Breckenridge.. 82
Occupation, Diseases of, and Vocational Hygiene—Kober and Hanson..... 156
Olive and Bliss—Physics and Chemistry for Nurses..... 82
Olsen, J. C.—Pure Foods..... 236
Orthopedic Surgery for Nurses—Berry..... 236
Parker and Breckenridge—Surgical and Gynecological Nursing.. 82
Physician, Memoirs of Veressayev..... 303
Physics and Chemistry for Nurses—Bliss and Olive..... 82
Pottenger, Francis Marion—Clinical Tuberculosis..... 364
Practitioner's Medical Dictionary—Gould..... 155
Preventive Medicine and Hygiene—Rosenau..... 237
Proceedings of National Conference of Charities and Correction, at Forty-third Annual Session, 1916..... 155
Public Health Nursing—Gardner..... 237
Public Health Protection, American—Hemenway..... 156
Pure Foods—Olsen..... 236
Rake Knitting and Its Special Adaptation to Invalid Workers Tracy..... 439
Rhymes of a Red Cross Man—Service..... 236
Rosenau, Milton J.—Preventive Medicine and Hygiene..... 237
Scott, Carrie E.—Manual for Institution Libraries..... 155
Service, Robert W.—Rhymes of a Red Cross Man..... 236
Side-Stepping Ill Health—Bowers..... 236
Stoney, Emily A. M.—Bacteriology and Surgical Technic for Nurses..... 237
Surgery, Orthopedic, for Nurses—Berry..... 236
Surgical and Gynecological Nursing—Parker and Breckenridge.. 82
Surgical Technic and Bacteriology for Nurses—Stoney..... 237
Tracy, Susan E.—Rake Knitting and Its Special Adaptation to Invalid Workers..... 439
Tuberculosis, Clinical—Pottenger..... 364
Tuberculosis Nurse, Her Function and Her Qualifications—Lamotte..... 304
Veressayev, Vikenty—The Memoirs of a Physician..... 303
Vocational Hygiene and Diseases of Occupation—Kober and Hanson..... 156
Wayside Flowers of Summer—Keeler..... 439

CURRENT HOSPITAL LITERATURE—
Adair, Frank E.—Surgical Staff Conference..... 47
Alcoholics, Bernese Institution for Treatment of—Glaser..... 364
American Hospitals in Germany and Austria—McDill..... 46
d'Anfreville de la Salle—Medical Creation of General Gallieni.. 364
Asepsis, Care and, in Hospitals for Infants—Strauch..... 362
Austria and Germany, American Hospitals in—McDill..... 46
Bartine, Oliver H.—After-Care of Infantile Paralysis Cases..... 128
"Been Hoa," French Red Cross Hospital Ship—Koning..... 47
Berlin Institution for Crippled Children—McMurtrie..... 45
Bernese Institution for Treatment of Alcoholics—Glaser..... 364
Birtch, Fayette Watt—Group Study—A Plea for Medical Cooperation in Hospitals..... 213
Blumer, George—The Modern Medical School, Its Relations to the Hospital and to the Medical Profession..... 46
Bologna, Institution of Maternal Assistance in—Finizio..... 128
Bowditch, Vincent Y.—History of the Growth of the Anti-Tuberculosis Movement in Massachusetts..... 127
Bracken, H. M.—State Aid for Sanatoria for the Tuberculous.. 46
Brooklyn Hospital Dispensary, Genito-Urinary Department..... 363
Burr, Charles W.—State Care of the Indigent Insane..... 127
Cardiac Disease, Need of Special Clinic for—Kahn..... 46
Causey, Frederick A.—A Preliminary Welfare Report of Cases Recently Discharged from the Watertown State Hospital.... 214
Caverly, Charles S.—The Value of Isolation Hospitals for Small Cities..... 129
Chapin, Henry Dwight—Hospital Social Service for Children... 438
Children, Hospital Social Service for—Chapin..... 438

CURRENT HOSPITAL LITERATURE—Continued.
Cholera, Preventive Measures Against, in Military Isolation Hospital—Della Vida..... 362
Clarke, C. K.—Attitude of Hospital Toward Venereal Diseases.. 363
Class Method of Home Treatment in Pulmonary Tuberculosis, Results Obtained by—Pratt..... 211
Clerkships, Clinical, in First Surgical (Cornell) Division, New York Hospital—Lee..... 129
Clinic, Special, for Cases of Heart Disease, Need of—Kahn..... 46
Clinical Clerkships in First Surgical (Cornell) Division at New York Hospital—Lee..... 129
Community Hospital, Elverum—Petersen..... 45
Consumption; see Tuberculosis, Pulmonary.
Contagious Diseases, Hospital for, Organization and Working of —Labbé..... 362
Cosgrave, E. M.—Drumcondra Hospital: A Short History..... 364
County Health Administration—Rankin..... 130
Crippled Children, Berlin Institution for—McMurtrie..... 45
Della Vida, M. L.—Observations on Preventive Measures Against Cholera in Military Isolation Hospital..... 362
Derlin, L.—Organization of the Hospital Pharmacy in Stettin.. 213
Diagnosis, Team-Work in
Group Study in Hospitals—Birtch..... 213
Paid Service in Hospitals—Schulman..... 212
Surgical Staff Conference—Adair..... 47
Dispensaries; see also Tuberculosis (Tuberculin) Dispensaries.
Diversional Therapy in Mental Diseases—Robinson..... 129
Drake, Daniel E.—A New Development in Sanatorium Treatment..... 127
Drumcondra Hospital: A Short History—Cosgrave..... 364
Education, Medical; see Medical Education.
Ellis, Henry A.—Practical Considerations on the Conduct of Work at a Tuberculosis Dispensary..... 212
Elverum Community Hospital—Petersen..... 45
Employment, Mental Tests for Candidates for—Rossy..... 45
Equipment, Hospital, Labor Saving Devices in—Stevens..... 213
Feer, E.—Prevention of Transmission of Infectious Diseases in Hospitals..... 362
Finizio, G.—The Institution of Maternal Assistance in Bologna.. 128
Ford, James S.—Employment of Persons in the Arrested Stage of Tuberculosis..... 130
French Red Cross Hospital Ship "Been Hoa"—Koning..... 47
Fromaget, C.—Making Use of Woman as a Nurse in Time of War..... 214
Fuente, J. M. de la—The Royal Hospital for Indians of the City of Mexico..... 213
Gallieni, General, Medical Creation of—d'Anfreville de la Salle.. 364
Garbagnati, Tuberculosis Hospital at, Work of Construction of.. 212
Genito-Urinary Department, Brooklyn Hospital Dispensary..... 363
Germany and Austria, American Hospitals in—McDill..... 46
Glaser—Bernese Institution for Treatment of Alcoholics..... 364
Group Study, A Plea for Medical Cooperation in Hospitals—Birtch..... 213
Hand, Left, of Disabled Sailors and Soldiers, Education of—Hutt..... 438
Health Center Field Work—Schaefer..... 438
Heart Disease Clinic, Need for—Kahn..... 46
Heliotherapy; the Climatic Station at Leysin, Switzerland—St. Jacques..... 438
Holmes, C. R.—The Hospital and Medical Education..... 214
Home and Hospital Care of Patients—Wortman..... 47
Home Economics in Hospital Administration, Some Phases of—Selden..... 364
Hospital Administration, Some Phases of Home Economics in—Selden..... 364
Hospital and Home Care for Patients—Wortman..... 47
Hospital and Medical Education—Holmes..... 214
Hospital and Medical Profession, Relation of Modern Medical School to—Blumer..... 46
Hospital Equipment, Labor Saving Devices in—Stevens..... 213
Hospital Experience With Open-Air Hall—LeRutte..... 127
Hospital Pharmacy in Stettin, Organization of—Derlin..... 213
Hospital Ship "Been Hoa," French Red Cross—Koning..... 47
Hospital Social Service for Children—Chapin..... 438
Hospitals; see also Tuberculosis Hospitals.
Hospitals, American, in Germany and Austria—McDill..... 46
Hospitals in Stations—Roux..... 364
Hospitals, Large, Treatment of Injured Workmen in—Korteweg.. 128
Hospitals, Paid Service in, Its Advantages Over the Present Free System—Schulman..... 212
Hospitals, Plea for Medical Cooperation in—Birtch..... 213
Hutt, C. W.—Education of the Left Hand of Disabled Sailors and Soldiers..... 438
Hygiene, Social, Dispensaries of..... 128
Indians of the City of Mexico, Royal Hospital for—de la Fuente. 213
Industrial Plant, Modern, Medical Department of—West..... 129
Infantile Paralysis Cases, After-Care of—Bartine..... 128
Infants, Hospitals for, Care and Asepsis in—Strauch..... 362
Infection, Clinical Thermometer as a Carrier of—Martocci-Pisculli..... 47
Infectious Diseases, Establishment of Barracks for, in Institutions for Mental Diseases—van Walsem..... 214
Infectious Diseases, Prevention of Transmission of, in Hospitals—Feer..... 362
Insane, Condition of, After Discharge
Preliminary Welfare Report of Cases Recently Discharged from Watertown State Hospital—Causey..... 214
Insane, Indigent, State Care of the—Burr..... 127
Insane, Social Service for—Jarrett..... 438
Irvine, H. G.—Syphilis in State of Minnesota..... 363
Isolation Hospitals, Value of, for Small Cities—Caverly..... 129
Isolation Pavilions.
Establishment of Barracks for Infectious Diseases in Institutions for Mental Diseases—van Walsem..... 214
Italian Hospital in Lugano, Switzerland—Pini..... 212
Jarrett, Mary C.—Possibilities in Social Service for Psychopathic Patients..... 438
Jarrett, Mary C.—The Intensive Group of Social Service Cases.. 127
Kahn, Morris H.—The Need of a Special Clinic for Cases of Heart Disease..... 46
Kaurin, E.—Researches on the Presence of Virulent Tubercle Bacilli in the Air and Dust of the Wards of Reknes Sanatorium..... 46

CURRENT HOSPITAL LITERATURE—Continued.
Kelley, E. R.—The Plan of the State Department of Health for More Tuberculosis Hospitals 212
Kent Bill and Migration in Rural Districts—Newton 437
Kent Bill: Would It Help Tuberculous?—Vaile 129
Koning—French Red Cross Hospital Ship "Been Hoa" 47
Korteweg, J. A.—Treatment of Injured Workmen in Large Hospitals 128
Labbé, M.—Organization and Working of Hospital for Contagious Diseases 362
Labor-Saving Devices in Hospital Equipment—Stevens 213
Lee, Burton James—Clinical Clerkships in The First Surgical (Cornell) Division 129
LeRutte, J. L.—Hospital Experience With an Open-Air Hall 127
Lewis, Ora Mabelle—What State Is Doing for Syphilitic at State Infirmary at Tewksbury, Mass 363
Leysin, Switzerland, Climatic Station at; Heliotherapy—St. Jacques 438
McDill, John R.—American Hospitals in Germany and Austria .. 46
McMurtrie, D. C.—Berlin Institution for Crippled Children 45
Madagascar, Creation of Hospitals in, by General Gallieni—d'Anfreville de la Salle 364
Martocci-Pisculli, L.—Clinical Thermometer as a Carrier of Infection 47
Massachusetts, Movement Against Tuberculosis in—Bowditch ... 127
Massachusetts State Infirmary for Syphilis at Tewksbury—Lewis
Maternal Assistance, Institution of, in Bologna—Finizio 128
Medical Education in Hospital—Holmes 214
Medical School, Modern—Its Relations to the Hospital and to the Medical Profession—Blumer 46
Mental Diseases, Diversional Therapy in—Robinson 129
Mental Diseases, Institutions for, Establishment for Barracks for Infectious Diseases in—van Walsem 214
Mental Hygiene, What the State Hospital Can Do in—Russell 437
Mental Tests for Candidates for Employment—Rossy 45
Mexico, City of, Royal Hospital for Indians of—de la Fuente 213
Minnesota, Syphilis in—Irvine 363
New York Hospital, Clinical Clerkships in First Surgical (Cornell) Division—Lee 129
New York State, General Hospitals of, Treatment of Venereal Diseases in—Weber 214
Newcomb, Philip B.—Institutional Typhoid Epidemic Combated by Vaccination 128
Newton, Richard Cole—The Tuberculin Dispensary 127
Newton, Robert J.—Will the Kent Bill Help? 437
Nurse, Woman as, in Time of War—Fromaget 214
Nurses, A Controversy Concerning the Number of, in a Hospital. 130
Open-Air Hall, Hospital Experience With—LeRutte 127
Patients, Caring for, at Home and in Hospitals—Wortman 47
Petersen, T.—Elverum Community Hospital 45
Pharmacy, Hospital, in Stettin, Organization of—Derlin 213
Phthisis; see Tuberculosis, Pulmonary.
Pini, P.—The Italian Hospital in Lugano, Switzerland 212
Poliomyelitis Cases, After-Care of—Bartine 128
Pratt, Joseph H.—Results Obtained by the Class Method of Home Treatment in Pulmonary Tuberculosis During a Period of Ten Years 211
Psychopathic Hospital, Yerkes-Bridges Point Scale as Applied to Candidates for Employment at—Rossy 45
Psychopathic Patients, Social Service for—Jarrett 438
Rankin, W. S.—County Health Administration 130
Red Cross Hospital Ship "Been Hoa," French—Koning 47
Reknes Sanatorium, Researches on the Presence of Virulent Tubercle Bacilli in the Air and Dust of Wards of—Kaurin .. 46
Robinson, Leigh F.—Diversion Therapy in Mental Diseases 129
Rossy, C. S.—Yerkes-Bridges Point Scale as Applied to Candidates for Employment at the Psychopathic Hospital 45
Roux, G.—Hospitals and Sanitary Stations 364
Royal Hospital for Indians of the City of Mexico—de la Fuente .. 213
Russell, John F.—Cost of Treating Pulmonary Tuberculosis, With Special Reference to Wage-Earners and Communities 211
Russell, William L.—What the State Hospital Can Do in Mental Hygiene 437
St. Jacques, E.—Heliotherapy at the Climatic Station at Leysin, Switzerland 438
St. Johns Hospital, 1816-1916 364
Sailors and Soldiers, Disabled, Education of Left Hand of—Hutt 438
Sanatoria for the Tuberculous, State Aid for—Bracken 46
Sanatorium Diagnosis, Team-Work in—Drake 137
Sanitary Stations and Hospitals—Roux 364
Schaefer, Arthur—Health Center Field Work 438
Schulman, M.—Paid Service in Hospitals—Its Advantages Over the Present Free System 212
Selden, Elizabeth—Some Phases of Home Economics in Hospital Administration 364
Social Hygiene, Dispensaries of, and for the Prevention of Tuberculosis 128
Social Service Cases, the Intensive Group of—Jarrett 127
Social Service for Children—Chapin 438
Social Service for Psychopathic Patients—Jarrett 438
Solaro, G.—The Mobile Surgical Hospital "City of Milan" in the Field 130
Soldiers and Sailors, Disabled, Education of Left Hand of—Hutt 438
Staff Conference, Surgical—Adair 47
State Hospital, What It Can Do in Mental Hygiene—Russell 437
Stettin, Hospital Pharmacy in, Organization of—Derlin 213
Stevens, Edward F.—Labor-Saving Devices in Hospital Equipment 213
Strauch, August—Care and Asepsis in Hospitals for Infants 362
Surgical Hospital, The Mobile, "City of Milan"—Solaro 130
Surgical Staff Conference—Adair 47
Syphilis in Minnesota—Irvine 363
Syphilitic, What State Is Doing for, at State Infirmary at Tewksbury, Mass.—Lewis 363
Thermometer, Clinical, as a Carrier of Infection—Martocci-Pisculli 47
Tubercle Bacilli, Virulent, Not Found in Air and Dust of Wards of Reknes Sanatorium—Kaurin 46
Tuberculin Dispensary—Newton 127
Tuberculosis, Campaign Against (Suggested Aid for Arrested Cases)—Vogel 211

CURRENT HOSPITAL LITERATURE—Continued.
Tuberculosis Dispensary of Venice, Work of 212
Tuberculosis Dispensary, Practical Considerations on Work at—Ellis 212
Tuberculosis, Employment of Persons in Arrested Stage of—Ford 130
Tuberculosis Hospital at Garbagnati, Work of Construction of .. 212
Tuberculosis Hospitals, More, Plan of State Department of Health for—Kelley 212
Tuberculosis, Movement Against, in Massachusetts—Bowditch ... 127
Tuberculosis Prevention, Dispensaries for, and of Social Hygiene. 128
Tuberculosis, Pulmonary, Cost of Treating, with Special Reference to Wage-Earners and Communities—Russell 211
Tuberculosis, Pulmonary, Results Obtained by Class Method of Home Treatment in—Pratt 211
Tuberculosis Sanatorium, State Aid for—Bracken 46
Tuberculous, Federal Aid for—Would Kent Bill Help?—Vaile ... 129
Tuberculous, Migration of, and the Kent Bill—Newton 437
Typhoid Epidemic, Institutional, Combated by Vaccination—Newcomb 128
Vaccination, Institutional Typhoid Epidemic Combated by—Newcomb 128
Vaile, Gertrude—Federal Aid for Consumptives—Would the Kent Bill Help? 129
van Walsem, G. C.—The Establishment of Barracks for Infectious Diseases in Institutions for Mental Diseases 214
Venereal Diseases, Attitude of Hospital Toward—Clarke 363
Venereal Diseases, Treatment of, in General Hospitals of New York State—Weber 214
Venice, Tuberculosis Dispensary of, Work of 212
Vogel, Louis G.—Another Step in the Antituberculosis Campaign 211
Wage-Earners and Community, Cost of Treating—Russell 211
War, Woman as a Nurse in—Fromaget 214
Watertown State Hospital, Preliminary Report of Cases Recently Discharged from—Causey 214
Weber, Joseph J.—Treatment of Venereal Diseases in General Hospitals of New York State Outside of New York City 214
West, F. O.—The Medical Department of a Modern Industrial Plant 129
Woman as a Nurse in Time of War—Fromaget 214
Workmen, Treatment of Injured, in Large Hospitals—Korteweg.. 128
Wortman, J. C.—Caring for Patients at Home and in Hospitals .. 47
Yerkes-Bridges Point Scale as Applied to Candidates for Employment at the Psychopathic Hospital—Rossy 45

DEPARTMENT OF DIETETICS—
Catsup, New Pure-Food: Or, When Is a Chemical Not a Chemical?—Wesener 227, 288, 349
Chicago Dietitians Organize 57
Cleveland, Dietitians of 347
Dasheen 228
Diet, Variety in 436
Dietary, Hospital—Joslin 57
Dietetics in Ohio 227
Dietitian, Cooperation With 136
Dietitian, Problems of and Her Relation to the Hospital and Training School—Atwood 285
Dietitian, Status of, in Ohio—Upham 229
Dietitians, Chicago, Organize 57
Dietitians, New York, Organize 227
Dietitians of Cleveland 347
Glucose, Commercial, Chemical Composition of, and Its Digestibility—Wesener and Teller 60, 138
Home Economics in Relation to Hotel Problems—White 347
Home Economics Meeting, Ohio, Report of 57
Hospital and Training School, Relation of Dietitian to—Atwood. 285
Hospital Dietary—Joslin 57
Hotel Problems, Home Economics in Relation to—White 347
Luncheon System, School, Cooperative, of the Philadelphia Board of Public Education—Smedley 136
New York Dietitians Organize 227
Ohio, Dietetics in 227
Ohio Home Ecoing. Meeting, Report of 57
Ohio, Status of Dietitian in—Upham 229
Philadelphia Board of Public Education, Cooperative School Luncheon System of—Smedley 136
School Luncheon System, Cooperative, of the Philadelphia Board of Public Education—Smedley 136
Training School and Hospital, Relation of Dietitian to—Atwood. 285

DEPARTMENT OF NURSING—
Bacteriology in the Curriculum of the Training School—Van de Vrede 52
First Aid and Home Nursing, Teaching of—Stewart 215
Hospital, Relation of Training School to—Warner 344
Laboratory Technic, Clinical, for Nurses—Gibson 50
New Year's Greeting—Goodrich 49
Nurses, Clinical Laboratory Technic for—Gibson 50
Nurses, Registration of, Reciprocity in—Bahn 51
Nursing, Home, and First Aid, Teaching of—Stewart 215
Nursing Organizations in United States, Their Origin, Purpose, and Some of Their Results—Pfefferkorn 131
Nursing Organizations, Three National, 1917 Convention of 430
Nursing, Public Health, National Organization for—Crandall ... 133
Reciprocity (in registration of nurses), Present and Future Aspect of—Bahn 51
Training School, Bacteriology in Curriculum of the—Van de Vrede 52
Training School, Relation of, to Hospital—Warner 344
Training Schools, Inspection of—Harmer 281

DISPENSARY AND OUT-PATIENT WORK—
Dispensary Work, Growth of 144

EDITORIAL—
Advertising a Hospital 32
Authors Request Aid 343
Autocrat of the Staff 202
Brush, F., Poem by (Imagination in the Hospital) 272
Buildings, Old, for Hospital Purposes 32
Child Labor and Preparedness 423
Children's Bureau, Must It Be Crippled? 117
China, Unchanging No More 273

EDITORIAL—Continued.
Damages, Suits for, Against Hospitals....273
Diagnosis, Group, and Hospitals....200
Diversion Therapy in Sanatoriums....341
Editorial Offices, Our New....203
Eight-Hour Day for Nurses....271
Entertainment (Diversion Therapy) in Sanatoriums....341
Exchanges, Foreign, Cut Off by the War....343
Front-Door Superintendent....202
Group Diagnosis and Hospitals....200
High Cost (of Hospital Living)....118
Hospital, Advertising a....32
Hospital, Imagination in....272
Hospital Purposes, Old Buildings for....32
Hospital, Small, Medical Staff in....33
Hospital, Small, Special Number for the....421
Hospital Staff, Autocrat of....202
Hospital Staff, Small....33
Hospital Supplies, Economy in (The High Cost)....118
Hospital World and the War....420
Hospitals and Group Diagnosis....200
Hospitals and Land Values....116
Hospitals Facing Parks....342
Hospitals, Selling to (Superintendent and Salesman)....117
Hospitals, Standardizing—Hornsby....271
Hospitals, Suits for Damages Against....272
Hospitals, Taste and Refinement in....341
Imagination in the Hospital....272
July, Special Features for....422
Land Values and Hospitals....116
Manila Bay—Brush (Imagination in the Hospital)....272
Medical Staff in a Small Hospital, The....33
Minnesota's Work in Tuberculosis....200
Nurses, Eight Hours for....271
Occupational Diseases and the Physician....118
Occupational Therapy Number....342, 422
Organizations, National, and Their Programs....340
Parks, Hospitals Facing....342
Politics in a State Hospital....203
Preparedness and Child Labor....423
Preparedness Committee Wants Reports....343
Report, Annual, Meat From....203
Residences, Old, for Hospital Purposes....32
Salesman and the Superintendent....117
Sanatoriums, Diversion Therapy in....341
Sickness Surveys, Plea for—Goldwater....270
Staff, Autocrat of....202
Staff, Medical, in a Small Hospital....33
Standardization Articles Postponed—Other Last-Minute Notations....422
Standardizing Hospitals—Hornsby....271
State Hospital, Politics in....203
Superintendent and Salesman....117
Superintendent, Front Door....202
Tuberculosis, Minnesota's Work in....200
Tuberculosis Problem, Ever Changing Yet Ever the Same....201
War and the Hospital World....420
Work Therapy Number....342

FOREIGN CORRESPONDENCE—
Achilleion Palace Hospital, Corfu....225
Ambulance, Field, Work of....225
Anglo-Russian Hospital at Petrograd....226
Convalescent Home for Officers....226
Disinfector, Movable....225
War Hospital Notes....152, 225

HINTS FOR HOSPITAL SUPERINTENDENTS—
Coal, Economy in....162
Devices, New....162
Hospital Inventory....376
Hospital, Teaching in....376
Isolation Units....376
Pencils and Penholders, Economy in—Bacon....376
Superintendent, Standards for....162
Vacuum Bottles, Cleaning of....162

HOSPITAL, MEDICAL, AND SPECIAL MEETINGS—
Alienists and Neurolgists, Meeting of....358
American Medical Association Committees of Interest to Hospital People....151, 235, 269
American Medical Association, 1917 Meeting of....434
American Nurses' Association, 1917 Meeting of....430
Charities and Correction, National Conference of, Meeting of..357
Child Labor Conference at Baltimore....357
Dietitians, New York Association of....435
Kansas Hospital Association, 1917 Meeting of....435
Mental Hygiene, National Committee on....296
Minnesota Hospital Association, Formation of....435
National League of Nursing Education, 1917 Meeting of....430
National Organization of Public Health Nursing, 1917 Meeting of....430
New York Association of Dietitians, 1917 Meeting of....435
Nurses' Associations, American, Joint Annual Convention of..284, 356
Nurses' Association, American, 1917 Meeting of....430
Nursing Education, National League of, 1917 Meeting of....430
Occupational Therapy, National Society for Promotion of, Organization of....356
Ohio Hospital Association, Meeting of....358
Public Health Nursing, National Organization of, 1917 Meeting of....430

ILLUSTRATIONS—
Achilleion Palace, Island of Corfu....225, 226
Acme Water Still....367
Agana, Capital of Guam, Main Street in....18
Ambulance, Motor, Designed in Accordance With United States Government Specifications....24
Ambulance, Motor, of United States Navy Department....22
Ambulance, Motor, Used by United States Bureau of Mines....24
Ambulance, Motor, United States Army....22
Banks Blood Needle....442
Berry Window Ventilator....304, 305

ILLUSTRATIONS—Continued.
Beth Israel Hospital, New York....204
Binocular Magnifier, New....79
Blindness Exhibit....64
Blindness, Preventable, Cases of....63
Blood Needle, Banks....442
Bone Engine, Hoglund....306
Bone Saw, Shaw-Mason....440
Boys' Clubs....370, 371
Burke Foundation Athletic Field....119
Burke Foundation Library....252
Butler Sanitary Back Rest....369
Carrel Apparatus for Wound Sterilization....367, 368
Central Hospital of Peking, China....242, 243
Chicago Municipal Tuberculosis Diagnostic Stations, Proposed, Floor Plans of....209, 210
Child Labor in Kentucky....427, 428
China, Medical Renaissance in....307
Cincinnati & Suburban Telephone Company, Welfare Work of..76, 77
Commonwealth Edison Company, Welfare Work....231
Cook County Hospital, X-Ray Department of 322, 323, 324, 325, 326, 327
Cook County Tuberculosis Hospital, Oak Forest, Ill....378, 379
County Tuberculosis Sanatoriums in Minnesota....182, 183, 184
Dementia Precox Patients, Exercises for....417
Devereux Mansion Workshops, Marblehead, Mass., and Articles Made There....383, 384, 385
Eastman Kodak Company, X-Ray Room....295
Electric Heating Pad, Goodwill....441
Electrocardiograph....279, 280
Emergency Hospitals for Industrial Plants....107, 108, 109
Engstad Warm Ether Inhaler....305
Firestone Tire and Rubber Company, Club House....353
Gallbladder Aspirator, Straus....307
Gangosa....19
Goodwill Electric Heating Pad....441
Greeley Hypodermic Unit....304
Green Gables, Lincoln, Neb....249, 250
Guam, Transportation in....19
Health Exhibits of New York Social Hygiene Society....140
Heating Pad, Electric, Goodwill....441
Hoglund Bone Engine....306
Homestake Mining Company....74, 75
Hospital for Deformities and Joint Diseases...84, 85, 86, 87, 88, 89
Hospital Train, German Red Cross....329
Hypodermic Syringes, Sterilizing Outfit for....441
Immanuel Deaconess Surgical Hospital, Omaha, Neb....337
Indiana Hospital for Insane Criminals....407, 408
Insane, Hospital for, Brockville, Ont....97, 98
Johnson, Dr. L. W., Residence of, Guam....18
Jordan Hospital, Plymouth, Mass...259, 260, 261, 262, 263, 264, 265
Kanavel Stomach Lavage, Feeding and Aspirating Tube....369
Kells Nonleakable Trocar....368
Lakeside Hospital, Cleveland, Ohio, Dermatological Clinic of....223
Lamp, Safety Operating....442
Leitz Automatic Feed Freezing Microtome....366
Limousine Ambulance, McGann....199
Lyons Milk Urn....441
Microtome, Automatic Feed Freezing, Leitz....366
Milk Urn, Lyons....441
Minneapolis Health and Happiness Week....124, 125
Muhlenberg Hospital....2, 3, 4, 5
National Bureau of Standards, Test for Clinical Thermometers..374
New York Edison Company, Welfare Work of....267, 268
Nopeming Hospital for Tuberculosis, Duluth, Minn. 189, 190, 191, 192, 193, 194
Nopeming Sanatorium, Articles Made by Patients at..388, 389, 390
Oklahoma Hospital, Tulsa, Okla....333, 334, 335, 336
Operating Lamp, Safety....442
Ostermoor Sanitary Protective Sheeting....367
Philadelphia Cooperative School Luncheon System....136, 137, 138
Philippine General Hospital, Manila 165, 166, 167, 168, 169, 170, 171
Poliomyelitis, Tent for Treatment of, at Fordham Hospital, New York....331, 332
Presbyterian Hospital, Dolls' Costumes Made in Occupation Classes of....425, 426
Presbyterian Hospital, San Juan, Porto Rico....245
Pulmotor, Portable....80
Robertson Vacuum Bottle....78
St. Anthony Mats....429
St. Dunstan's Hospital for Blinded Soldiers, Regent's Park, London, Interior of One of Rooms in....153
St. Joseph's Hospital, Kansas City, Mo....11
Salvarsan Apparatus, Kaufman....80
Shaw-Mason Bone Saw....440
Sicher, D. E., & Co., New York, Class Room....352
Sicher, D. E., & Co., New York, Emergency Hospital....351
Smith Spotlight....369
Sterilizer, Jacketed Steam-Pressure, Right Way for Piping for.. 15
Sterilizer Jar, Vim, for Hypodermic Syringes....441
Sterilizer, Right and Wrong Way of Applying Steam to....14
Sterilizer, Syringe, Vim....366
Sterilizing Apparatus, Various Types of American and European....157, 158, 159, 160
Straus Gallbladder Aspirator....307
Stucky Protective Shield....78
Taheiho, Town of, China....244
Trocar, Kells Nonleakable....368
Tuberculosis League of Pittsburgh, New Children's Building of....313, 314, 315, 316
Tuberculosis Preventorium for Children, Farmingdale, N. J. 177, 178, 179
United Shoe Machinery Company, Agricultural Welfare Work of....141, 142
United States Government Supply Committee, Headquarters of..373
United States Naval Hospital, Guam....17, 18
Urethral Syringe, Air-Pressure....306
Vim Sterilizing Jar, for Hypodermic Syringes....441
Vim Syringe Sterilizer....366
Wayne Hospital, Wayne, Neb....101, 102

ILLUSTRATIONS—Continued.
Western Minnesota Hospital, Graceville, Minn.....163
Wright Splint, Showing Range of Application.....305
X-Ray Apparatus.....238, 239, 240
X-Ray Department of Cook County Hospital, 322, 323, 324, 325, 326, 327

INDUSTRIAL WELFARE—
Cincinnati & Suburban Telephone Company, Welfare Work of—McComas.....75
Commonwealth Edison Company, Welfare Work of—Kobick.....231
Eastman Kodak Company, Rochester, N. Y., Welfare Work of..295
Employees, Contentment of—Cary.....232
Firestone Tire and Rubber Company, Industrial Service in Factory of Lee.....353
Homestake Mining Co., Lead, S. D., Welfare Work of the—Clough.....74
Hospital Work and X-Ray Research.....295
Industrial Service, Practical—Hill.....351
Kodak Company, Eastman, Rochester, N. Y., Welfare Work of..295
Mining Company, Homestake, Lead, S. D., Welfare Work of—Clough.....74
Shoe Machinery Company, United, Welfare Work of—Walsh....141
Sicher & Co., Social Service in Factory of—Hill.....351
Telephone Company, Cincinnati & Suburban, Welfare Work of—McComas.....75
Tire Factory, Industrial Service in—Lee.....353
United Shoe Machinery Company, Agricultural Welfare Work of—Walsh.....141
X-Ray Research, Hospital Work and.....295

INDEX OF HOSPITAL AND SANATORIUM LITERATURE..... 48

INSTITUTION LIBRARIES—
Nebraska State Institution Libraries During 1916—Williams...297

LETTERS TO THE EDITOR—
Fumigation in Hospitals—Bishop.....375
Hospital Economies, Reports of, Desired—Morritt.....375
Hospital Library Again—Jones.....73
Hospitals and Noise Nuisance—Bacon.....375
Hospitals, Suits for Damages Against—Pflaum.....299
Nurses and Factory Labor—Bacon.....299

MISCELLANEOUS—
Abernethy's Cure for Gout.....289
Accounting, Hospital, Form of Annual Report for.....120
Addison's Disease, Discovery of.....416
Ambulance, Limousine, New Type of.....199
Anesthetic, Nurse Permitted to Give, in Pennsylvania.....126
Anesthetist, Nurse.....289
Army Base Hospital, Federal, First Diet Kitchen in.....161
Associated Jewish Charities and Jewish Aid Society Aiding Handicapped to Support Themselves—Taussig.....418
Athletic Field, Institution—Wright.....119
Autopsies, Value, Methods of Obtaining and Protection of the Hospital—Winternitz.....36
Baby and Fly Poison.....439
Baby Culture, School Children on.....34
Bartine Goes to Flower Hospital.....31
Base Hospitals (Red Cross Military Units).....433
Battle Creek, Public Health Nursing Course at.....280
Battle Creek Sanitarium Home for Nurses.....147
Beth Israel Hospital, Remodeling—Frank.....204
Boston, Instructive District Nursing Association of.....386
Boys' Club a Preventive Prescription—Keith.....370
Burke Foundation Athletic Field—Wright.....119
California, County Hospitals of, Condemned.....12
Canadian Soldiers, Disabled, Vocational Training for.....424
Cancer, Prevention of, by Annual Examination.....20
Chaplain, Contribution of, to Team-Work—Tracy.....122
Chicago, Municipal Tuberculosis Diagnostic Stations Proposed in.....209
Child Labor During the War.....427
Child Labor in Kentucky.....427
Child, Unusual, Social Adjustment of.....358
China, Medical Renaissance in.....307
China, Nursing Insane in.....280
China, Training Nurses in.....265
Chinese Medicine and Educated Chinese.....296
Chinese Mothers-in-Law, Maternity Lectures for.....248
Cleveland Hospital Council, Standard Report, Form of.....120
Clinic, School, for Subnormal Children.....92
Community Hospital Created by Selling Stock—Oliver.....163
Cook County Hospital, Occupational Therapy in.....425
County Hospitals of California Condemned.....12
Crippled Children, Problem of.....298
Crippled Soldiers, Reeducation of.....424
Cure, Perfect, an Impossibility.....188
Defectives, Mental, Care of, in Ontario.....350
Defectives, Routine Mental Tests for.....194
Diagnosis Hospital, First.....25
Diagnosis Hospital, First, San Diego Claims.....343
Diet Kitchen, First, in Federal Army Base Hospital.....161
Dispensaries, Traveling, in India.....98
Dispensary Practice, Status and Standards of.....135
Doctor, Trials of.....237
Eight-Hour Law for Nurses (The Nurse—Laborer or Professional?).....269
Electricity in Hospital—Myers.....205
Electrocardiograph—Bacon and Smith.....279
English Language, Advantages of.....289
Epileptics, Insane, Lack of Hospitals for, in Pennsylvania.....163
Eye Strain in Government Employees.....301
Farms, Child Labor on.....427
Fats, Saving of.....224
Fees, Hospital, Collection of.....350
Fees, Hospital, in Industrial Accident Cases.....198
Flower Hospital, Bartine Goes to.....31
Fly Poison and the Baby.....439
Food, Elimination of (Man Is Like a Furnace).....230
French Visiting Nurses and Sanatorium Apartments.....393
Fumigation, Reasons for Ineffectiveness of—Ward.....115
Games, Sterilized, for Children.....298

MISCELLANEOUS—Continued.
Garment Workers, Gas-Poisoned.....353
General Hospital, Occupational Therapy in.....425
General Hospitals, Red Cross Military Units.....433
German Hospital Ships, Equipment of.....424
Germ-Proof, Strictly—Guiterman.....198
Goodrich, Miss Annie W., Appointed Director of Nursing Service of Henry Street Settlement.....203
Gout, Abernethy's Cure for.....289
Government Employees, Eye Strain in.....301
Handicapped, Occupations for (Making Dependents Self-Supporting)—Taussig.....418
Handicapped Soldiers, Reeducation of.....424
Health and Happiness Week in Minneapolis.....124
Health Examination at School Entrance.....360
Heart Cases, Diagnosis of (Electrocardiograph)—Bacon and Smith.....279
History Sheet Shorthand.....210
Hospital and Patient, Relation of.....301
Hospital Autopsies—Their Value and Methods of Obtaining—Winternitz.....36
Hospital Fees: see Fees.
Hospital Organization in Rural Pennsylvania—Foss.....275
Hospital Ship, Navy's First Complete.....34
Hospital Ships, German, Equipment of.....424
Hospital, Small, That Pays (Western Minnesota)—Oliver.....163
Hospital Staff, Saving in Full-Time Physicians on.....161
Hospital Supplies, How United States Government Buys—Fawcett.....372
Hospital Units, Red Cross Military.....433
Hospitals; see also Community Hospitals, County Hospitals, Diagnosis Hospitals, Tuberculosis Hospitals.
Hospitals, County, of California Condemned.....12
Hospitals, Trachoma, in Mountain Region of South.....31
India, Traveling Dispensaries in.....98
Industrial Accident Cases, Hospital Fees in.....198
Industrial Medicine and Surgery, Clinic on.....154
Industrial Patients, Sanatorium Treatment of.....393
Infantile Paralysis Clinics, Standard for.....115
Insane Epileptics, Lack of Hospitals for, in Pennsylvania.....163
Insane, Nursing of, in China.....280
Insane, State Versus County Care of.....31
Instructive District Nursing Association of Boston.....386
Intern, Contribution of, to the Team-Work—Beckman.....43
Interns, Service of.....68
Internship, Ruling on.....303
Java, Nursing Conditions in.....431
Jewish Aid and Associated Jewish Charities Aiding Handicapped to Support Themselves—Taussig.....418
Jubilee of the New Hospital for Women.....413
Kentucky, Child Labor in.....427
Leather, Imitation, and Linoleum—Rogers.....210
Limousine Ambulance, New Type of.....199
Linoleum and Imitation Leather—Rogers.....210
Maternity Lectures for Chinese Mothers-in-Law.....248
Mats, St. Anthony.....428
Medical Men, Careers for.....226
Mental Defectives; see Defectives.
Michael Reese Hospital, Occupational Therapy in.....425
Michigan, Tuberculosis Survey in.....188
Military Surgeons, Prizes Awarded by.....164
Military Units, Red Cross.....433
Minneapolis Health and Happiness Week.....124
Minnesota, Collection of Hospital Fees in.....350
Motion Study for Surgeons.....164
Municipal Hospital Law Asked by Northwestern Nebraska Medical Society.....199
Municipal Tuberculosis Diagnostic Stations of Chicago, Proposed.....209
Navy's First Complete Hospital Ship.....34
Necropsies, Value, Methods of Obtaining, and Protection of the Hospital—Winternitz.....36
New York Building Tuberculosis Hospitals.....307
New York Committee on After-Care of Infantile Paralysis, Standards for Clinics.....115
New York Health Department Employees, Routine Physical Examination for.....106
Northwestern Nebraska Medical Society Petitions Legislature for Municipal Hospital Legislation.....199
Nurse Anesthetist.....289
Nurses, Eight-Hour Law for (The Nurse—Laborer or Professional?).....269
Nurses' Home, Battle Creek Sanitarium.....147
Nurses, Pupil, Psychology for.....429
Nurses, Samoan, Graduation of the First Class of.....31
Nurses, Training of, in China.....265
Nurses, Visiting, French, and the Sanatorium Apartments.....393
Nursing Conditions in Java.....431
Nursing Course, Public Health, at Battle Creek.....280
Nursing Law, West Virginia's New—Clark.....135
Nursing, Public Health (Prenatal Work).....386
Obstetrics for Chinese Mothers-in-Law.....248
Occupational Diseases, Two New Clinics for (Rush Medical and Union Hospital).....154
Occupational Therapy in the General Hospital.....425
Occupational Therapy in Tuberculosis—Brown.....405
Occupations for the Tuberculous (Home Treatment for the Tuberculous)—Hochhauser.....207
Ontario, Care of Mental Defectives in.....350
Organizers, Don'ts for.....226
Paralysis, Infantile, Clinics.....115
Patient and Hospital, Relation of.....301
Pennsylvania Hospitals Refused Aid.....125, 238
Pennsylvania, Lack of Hospitals for Insane Epileptics in.....163
Pennsylvania, Rural, Hospital Organization in—Foss.....275
Physical Examination of Employees Routine in New York Health Department.....106
Physicians, Careers for.....226
Poison, Fly, and the Baby.....439
Poliomyelitis Clinics, Standards for.....115
Potatoes Luxury in Hospitals.....280
Prenatal Work, Beneficial Results of.....386

MISCELLANEOUS—Continued.
Presbyterian Hospital, Occupational Therapy in....425
Psychology for Pupil Nurses....429
Public Health Nursing Course at Battle Creek....280
Public Health Service Wants More Trained Medical Officers....226
Red Cross Military Units....433
Refrigerator, Suggestions About Building a....56
Report, Annual, Form of, for Cost Accounting....120
Rounds, Making, an American Custom....147
Rugs, St. Anthony....428
Rush Medical College, Clinic on Industrial Medicine and Surgery at....154
St. Anthony Mats....428
St. Luke's Hospital, Spokane, Wash., Burns....224
Samoan Nurses, Graduation of First Class of....31
Sanatorium Apartments and the French Visiting Nurses....393
Sanatorium Treatment of Industrial Patients....393
San Diego Claims First Diagnosis Hospital....343
School Clinic for Subnormal Children....92
School Entrance, Health Examination at....360
Sisters, Contribution of, to Team-Work—Esperance....276
Soldiers, Disabled Canadian, Vocational Training for....424
Spokane Hospital Burns....224
Subnormal Children, School Clinic for....92
Surgeons, Motion Study for....164
Surgical Sections (Red Cross Military Units)....433
Suture Manufacture in America—Rogers....408
Team-Work, Contribution of Chaplain to—Tracy....122
Team-Work, Contribution of Intern to—Beckman....43
Team-Work, Contribution of Sisters to—Esperance....276
Trachoma Hospitals in the Mountain Region of the South....31
Treasury Department Employees, Eye Strain in....301
Tuberculosis Diagnostic Stations, Proposed Municipal, in Chicago....209
Tuberculosis Hospitals, New York Building....307
Tuberculosis Organizers, Advice to....226
Tuberculosis Patients, Industrial, Sanatorium Treatment of....393
Tuberculosis, Prevention of....419
Tuberculosis Survey in Michigan....188
Tuberculous, Home Treatment (and Occupations) for—Hochhauser....207
Union Hospital, New York, Department of Occupational Diseases at....154
United States Government's Method of Buying Hospital Supplies—Fawcett....372
Visiting Nurses, French, and Sanatorium Apartments....393
Vocational Training for Disabled Canadian Soldiers....424
War, Child Labor During....427
War, Prevention of Tuberculosis in....419
West Virginia Hospital Association, New Officers of....203
West Virginia's Nursing Law—Clark....135
Western Minnesota Hospital (A Small Hospital That Pays)—Oliver....163
Women, Jubilee of New Hospital for....413
Work Essential to Cure in Tuberculosis—Brown....405
Worry a Form of Waste Motion....164

MODERN SANATORIUM—
Baths and Bathing—Ferris....359
Diagnosis, Obscurity of Disease a Spur to Success in—Ferris....222
Diet, Prime Importance of—Ferris....66

NEW INSTRUMENTS AND EQUIPMENT—
Acme Water Still....366
Aspirating, Stomach Lavage, and Feeding Tube....368
Aspirating Tube, Gallbladder....307
Back Rest, Butler Sanitary....369
Banks Blood Needle for Wassermann Test....442
Berry Window Ventilator....304
Binocular Magnifier, New....79
Bone Engine, Hoglund....306
Bone Transplants, Hand-Driven Circular Saw for Cutting....440
Butler Sanitary Back Rest....369
Carrel Apparatus for Wound Sterilization by Means of "Dakin's" Solution....367
Electric Heating Pad, Goodwill....441
Ether, Device for Warming, During Inhalation....305
Eye Localizer, Sweet....50
Feeding, Stomach Lavage, and Aspirating Tube....368
Gallbladder Aspirating Tube....307
Goodwill Electric Heating Pad....441
Greeley Hypodermic Unit....304
Heating Pad, Goodwill Electric....441
Hoglund Bone Engine....306
Hypodermic Sterilizing Outfit, Vest-Pocket....366
Hypodermic Syringes, Sterilizing Outfit for....441
Hypodermic Units....304
Intravenous Salvarsan Injection, Apparatus for—Kaufman....79
Kanavel Stomach Lavage, Feeding, and Aspirating Tube....368
Kells Nonleakable Trocar....368
Lamp, Safety Operating....442
Lavage, Stomach, Feeding, and Aspirating Tube....368
Leitz Automatic Feed Freezing Microtome....366
Lyons Milk Urn....441
Magnifier, Binocular, New....79
Mastoid Operations, Protective Shield for Retaining Dressings After....78
Microtome, Automatic Feed Freezing....366
Milk Urn, Lyons....441
Operating Lamp, Safety....442
Ostermoor Sanitary Sheeting....367
Pulmotor, Portable....80
Robertson Vacuum Bottle....78
Roentgen Ray Apparatus, Progress in Construction of....238
Salvarsan Injection, Intravenous, Apparatus for—Kaufman....79
Saw, Hand-Driven Circular, for Cutting Bone Transplants, Etc.440
Shaw-Mason Bone Saw....440
Sheeting, Ostermoor Sanitary Protective....367
Shield, Protective, for Retaining Dressings After Mastoid Operations....78
Smith Spotlight....369
Splint, Wright....305

NEW INSTRUMENTS AND EQUIPMENT—Continued.
Spotlight, Smith....369
Sterilizing Apparatus, Year's Progress in Construction of, by American Manufacturers....157
Sterilizing Outfit for Hypodermic Syringes....441
Sterilizing Outfit, Hypodermic, Vest-Pocket....366
Still, Acme Water....366
Stomach Lavage, Feeding, and Aspirating Tube....368
Stucky Protective Shield....78
Sweet Eye Localizer....240
Syringe, Urethral....305
Syringes, Hypodermic, Sterilizing Outfit for....441
Trocar, Nonleakable—Kells....368
Urethral Syringe, Air-Pressure....305
Vacuum Bottle, New, Robertson....78
Ventilator, Berry Window....304
Vim Alco (Alcohol) Hypodermic Sterilizing Outfit....366
Vim Sterilizer Jar....441
Wassermann Test, Blood Needle for....442
Water Still, Acme....366
Window Ventilator, Berry....304
Wound Sterilization, by Means of Dakin's Solution, Carrel Apparatus for....367
Wright Splint....305
X-Ray Apparatus, Progress in Construction of....238

NEWS OF THE HOSPITAL FIELD....Adv. 34, 34, 34, 34, 34

ORIGINAL ARTICLES—
Alcoholism, Chronic, Successful Medical Treatment in—Towns.. 6
Alcoholism, Treatment of, Sociological Aspect of—Towns....103
Ambulance, Motor, Cost of Operating—Fawcett....21
Arequipa Sanatorium, Potteries of....394
Burke Foundation, Library of—Burgoyne....251
Chinese, Model Hospital Established and Managed by—Wu....241
Coal, How Much Does a Patient Cost?—Beadle....172
Community Hospital, Small, Equipment—Hornsby....29
Community Hospital, Small, Interns, Nurses, and Employees—Hornsby....185
Community Hospital, Small, Organization—Hornsby....110
Community Hospital, Small, That Meets a Need (Wayne Hospital)—Lutgen....101
Community, Hospital Survey of—Weber....99
Community Plan, Urban, for Health and Medical Service—Armstrong and Berkowitz....309
Cook County Hospital, X-Ray Department of—Blaine....321
Cook County Tuberculosis Hospital, Oak Forest, Ill.—Bailey....377
Cost, High, of Living in the Hospital, Solving the Problem of—Fowler....90
County Hospital, New England (Milford, Mass.)—French....26
Criminals, Insane, Work in Treatment of—Bowers....406
Dementia Precox, Occupational Therapy in—Mabie....417
Detroit Receiving Hospital, Work of—Dretzka....96
Drawing and Modeling, Therapeutic Value of—Barton....399
Drunkenness; see Alcoholism.
Emergency Hospitals for Industrial Plants—Watters....107
Equipment of Small Community Hospital—Hornsby....29
Fordham Hospital, New York, Tent for Poliomyelitis Treatment—Boorstein....330
Gelatin and Jelly Powders—Street....93
German Red Cross Hospital Train—Wright....328
Green Gables, Lincoln, Neb. (A Sanatorium With a Homelike Atmosphere)—Field Editor....249
Guam, United States Naval Hospital on Island of—Johnson....16
Handicapped, Remunerative Occupations for—Hall....383
Health and Medical Service, Urban Community Plan for—Armstrong and Berkowitz....309
Hospital for Deformities and Joint Diseases, New Building for—Craiger and Heidelberg....83
Hospital for Insane, Brockville, Ont., New Reception Building of—Mitchell....97
Hospital, Model, Established and Managed by Chinese (Central Hospital of Peking)—Wu....241
Hospital Survey of a Community—Weber....99
Hospital Train, German Red Cross—Wright....328
Hospital Work in Island of Porto Rico—Hildreth....245
Hospitals, Standardization of: Comment on Classification—Hornsby....338
Hospitals, Standardization of: Introduction and Classification—Hornsby....256
Ice Cream, Composition, Manufacture, and Value—Street....317
Immanuel Deaconess Surgical Hospital, Omaha, Neb.—Cervin...336
Indigent Sick, Cooperative Care of—Small....180
Industrial Plants, Emergency Hospitals for—Watters....107
Inebriety; see Alcoholism.
Insane, Beneficial Effects of Work Therapy for—Clark....392
Insane Criminals, Work in Treatment of—Bowers....406
Jelly Powders and Gelatin—Street....93
Jordan Hospital, Plymouth, Mass., Architecture and Equipment of Mixter and Kellogg....258
Library, Institutional, Story of—Burgoyne....251
Medical Service and Health, Urban Community Plan for—Armstrong and Berkowitz....309
Mental Hospital, Occupation Therapy in—Ruggles....404
Mental Hygiene and Occupation—Thomson....397
Minnesota, County Tuberculosis Sanatoriums in—Bosworth, Sund, and Dunham....182
Muhlenberg Hospital, The New—A Complete Suburban Hospital—Hubbard....1
Muirdale, Occupational Therapy at—Horner....415
Naval Hospital, United States, on the Island of Guam—Johnson. 16
New England County Hospital (Milford, Mass.)—French....26
New York City Institutions, Occupational Therapy in—Johnson.414
New York Edison Company, Welfare Work of....266
Nopeming Hospital for Tuberculosis at Duluth, Minn.—Laird and Sullivan....189
Occupational Therapy; see in General Index.
Oklahoma Hospital, Tulsa, Okla.—Clinton....333
Oleomargarine, Useful and Economical Substitute for Butter—Street....195
Organization of Small Community Hospital—Hornsby....110
Peking, Central Hospital of—Wu....241
Philippine General Hospital, Manila—Musgrave....165

ORIGINAL ARTICLES—Continued.
Poliomyelitis, Convalescent Hospital for (How a Real Hospital Started and Grew) Wight....247
Poliomyelitis, Tent Hospital for (Paralyzed Children)—Boorstein....330
Porto Rico, Hospital Work in—Hildreth....245
Potteries of Arequipa Sanatorium—Brown....394
Principles of Occupational Therapy—Upham....409
Red Cross Hospital Train, German—Wright....328
Roentgen-Ray Department of Cook County Hospital—Blaine....321
St. Joseph's Hospital, Kansas City, Mo.—Griffith.... 10
Skim-Milk as Food—Street....253
Standardization of Hospitals: Comment on Classification—Hornsby....338
Standardization of Hospitals: Introduction and Classification—Hornsby....256
Sterilization, Facts and Fallacies of—Clark.... 13
Surgical Hospital, Immanuel Deaconess—Cervin....336
Tent Hospital for Paralyzed Children—Boorstein....330
Tuberculosis Hospital, Cook County, Oak Forest, Ill.—Bailey....377
Tuberculosis League of Pittsburgh, New Children's Building of—White, Stewart, and Shuey....312
Tuberculosis, Nopeming Hospital for, at Duluth, Minn.—Laird and Sullivan....189
Tuberculosis Preventorium for Children, Farmingdale, N. J.—Quimby....177
Tuberculosis Sanatoriums, County, in Minnesota—Bosworth, Sund, and Dunham....182
Tuberculous Patients, Occupation and Diversion for—Laird....387
United States Naval Hospital on the Island of Guam—Johnson.. 16
Wayne Hospital, Wayne, Neb.—Lutzen....101
Work, Inoculation of Bacillus of—Barton.... 3
X-Ray Department of Cook County Hospital—Blaine....321

PREVENTION OF BLINDNESS—MATERNITY—
Blindness, Illinois Society for Prevention of, First Report of... 62
Blindness, Prevention of, in Ohio—Stewart....219
Detroit Mothers, Two Thousand, Care of, in Childbirth....290

QUERIES AND ANSWERS—
Advertising the Hospital....233
Beds, Endowed, Price of....302
Charges Between Hospital Departments.... 71
Charges in Hospitals, Too Many Extra.... 69
Costs, Hospital.... 71
Departments, Hospital, Charges Between.... 71
Doors and Floors, Soundproof....233
Flooring, Old, Replacing of....302
Floors and Doors, Soundproof....233

QUERIES AND ANSWERS—Continued.
Floors, Cold Ward....148
Floors, Operating Room....149
Furnishings, Individual Gifts of....361
Health Insurance in Hospitals....233
Hospital Costs.... 71
Hospital Patients, Interpreters for....361
Hospital, Small, Cost of....302
Hospital, Small, Laboratory in....361
Hospital, Small, Staff in....148
Hospitals, Health Insurance in....233
Hospitals, Salaries in.... 69
Insurance, Health, in Hospitals....233
Interpreters for Hospital Patients....361
Laboratory in Small Hospital....361
Linoleum, Methods of Overcoming Bulging of.... 68
Morris Chairs for Wards....361
Mothers, Lodging of, in Hospitals With Sick Children....149
Operating Room Floors....149
Operating Rooms, Lumbered up.... 70
Paint, Method of Saving.... 68
Paint, Peeling of....148
Patients, Hospital, Interpreters for....361
Power Plant, Economical.... 69
Report, Annual....150
Salaries in Hospitals.... 69
Signal System, Best....148
Staff in a Small Hospital....148
Visitors, Too Many.... 70
Wall Stains, Chemical....361

SOCIAL HYGIENE—VENEREAL DISEASES—
Clinics for Venereal Diseases—Why We Need Them—How to Develop Them—Snow.... 54
Lakeside Hospital, Cleveland, Ohio, Dispensary Treatment for Venereal Diseases in—Tupper....223
Men's Health Exhibit of New York Social Hygiene Society—Osborne....139
New York Social Hygiene Society, Recent Public Health Activities of—Osborne....139
Public Health Activities, Recent, of the New York Social Hygiene Society—Osborne....139
Social Hygiene Society, New York, Recent Public Health Activities of—Osborne....139
Venereal Diseases, Clinics for—Why We Need Them—How to Develop Them—Snow.... 54
Venereal Diseases, Dispensary Treatment for, in Lakeside Hospital, Cleveland, Ohio—Tupper....223

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NEWS OF THE HOSPITAL FIELD

The Massie Memorial Hospital, Paris, Ky., is enlarging.

A hospital will be established at Georgetown, Tex., in the near future.

Dr. G. S. Kirby, Marion, N. C., is opening a private hospital in that city.

Dr. O. P. Harris, Mendota, Ill., is building a private hospital at that place.

St. James Hospital, Butte, Mont., is planning a new home for its nurses.

The Lakeview Hospital, Danville, Ill., opened a new 65-bed addition May 10.

The Bellaire City Hospital, Bellaire, O., has lately installed a new x-ray machine.

A campaign to raise $25,000 for the erection of a hospital has been launched at Hazen, N. D.

Additions to St. John's Hospital, Helena, Mont., are contemplated by the sisters in charge.

Miss Lura Bishop has resigned the superintendency of the Albion City Hospital, Albion, Mich.

Dr. William A. Brooks, Brookline, Mass., is arranging to enlarge his private hospital in that city.

The Shredded Wheat Company, Niagara Falls, N. Y., has had plans drawn for an emergency hospital.

Miss Bessie De LaVergne has resigned the position of matron at the Iola Sanatorium, Rochester, N. Y.

Miss Ethel Brown has resigned her position as superintendent of the Bayonne Hospital, Bayonne, N. J.

Dr. R. Brown has recently assumed the duties of superintendent at the Fairmont Hospital, San Francisco.

A stock company is being organized at Delphos, O., for the purpose of establishing a community hospital.

The Buffalo General Hospital, Buffalo, N. Y., will soon begin the erection of a $250,000 home for its nurses.

Miss Lillian O. Bailey, formerly of San Antonio, Tex., has recently opened a private sanatorium at Phoenix, Ariz.

A movement at Holland, Mich., to raise $15,000 for the establishment of a community hospital has been successful.

A campaign to raise $50,000 for the establishment of a community hospital has been inaugurated at Napoleon, O.

The Bethlehem Steel Company has recently opened new quarters for its emergency hospital at South Bethlehem, Pa.

Arrangements are being made by the Middletown Hospital, Middletown, O., to build a special ward for maternity cases.

A 40-room annex will probably be built to St. Joseph's Hospital at Deer Lodge, Mont., in the near future, it is announced.

Dr. J. B. Hewson, of Orange, Tex., has awarded a contract for the erection at Orange of a 16-room private sanatorium.

The voters of Chicago have authorized a $750,000 bond issue for extensions to the municipal hospital for contagious diseases.

A $200,000 fireproof building in course of construction for the Borgess Hospital, conducted by the Sisters of St.

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Joseph at Kalamazoo, Mich., is expected to be ready for occupancy by July 1. A considerable portion of the building will be devoted to private rooms with baths adjoining. In all, there will be accommodations for about 100 patients.

Plans are being drawn for a hospital building to be erected in connection with the Washington State Soldiers' Home at Orting.

The Memorial Hospital, Worcester, Mass., has had plans prepared for a 24-bed addition, which it expects to erect this summer.

The Timberlawn Sanitarium is a new corporation at Dallas, Tex. Dr. James J. Terrill, of Temple, Tex., heads the list of incorporators.

The Nebraska State Orthopedic Hospital and the State Home for Dependent Children, both at Lincoln, have recently been consolidated.

Contract has just been awarded by the Norwegian Tabitha Hospital, Chicago, for the erection of a five-story addition to cost $100,000.

Mayor Marshall, of St. Joseph, Mo., recommends a bond issue for city improvements, which would include $25,000 for an emergency hospital.

The North Carolina State School for the Blind, located at Raleigh, has been granted a legislative appropriation of $150,000 for new buildings.

Contract has been awarded for the erection of a new home for the Sacred Heart Hospital, Allentown, Pa., to cost about $250,000 complete.

A hospital has recently been opened in connection with the Colonial Inn at Dansville, N. Y. Miss Isabelle Bastain, of Hornell, N. Y., is in charge.

The Morgan Park Hospital, operated at Duluth, Minn., by the Minnesota Steel Company, was damaged by fire on April 15 to the extent of $10,000.

Dr. H. F. Leach, Weatherford, Tex., has purchased the Fairmont Seminary building at Weatherford and will convert it into a private sanatorium.

Dr. Montgomery E. Leary has resigned the superintendency of the Iola Sanatorium at Rochester, N. Y., and will resume the practice of medicine.

The commissioners of Middlesex County, Mass., have purchased at Waltham a site for a tuberculosis hospital which the county will erect in the near future.

Dr. C. A. Wills has resigned the post of superintendent at the Alameda County Hospital, San Leandro (near Oakland), Cal., after an incumbency of several years.

Mt. Zion Hospital, San Francisco, Cal., opened on May 5 a fine, new dispensary, erected for the institution by Mr. and Mrs. M. A. Gunst as a memorial to their deceased sons.

It is reported that the Sisters of Mercy, of Wilkesbarre, Pa., have acquired Dr. Reed Burns' private surgical hospital in Scranton and will conduct the institution in the future.

The Greenville Hospital Association, a new organization at Greenville, O., is receiving bids on the erection of a two-story and basement hospital, 65x40, estimated to cost $25,000.

After a vacation of nearly a year in California, Miss Mary E. Nesbit has returned to Council Bluffs, Ia., to resume her duties as superintendent of the Jennie Edmundson Hospital.

Bids have been received on the erection of the first unit of a complete new plant for the Deaconess Hospital at Butte, Mont., the main building of which is expected to cost $100,000.

Miss Anna Madsen will take charge of the University of Iowa Homeopathic Hospital at Iowa City June 1. She takes the place of Miss Martha Moritz, who will do public health nursing.

Mr. Joseph D. Flick, formerly superintendent of the New York City Farm Colony on Staten Island, has accepted an appointment as superintendent of the Hospital for Ruptured and Crippled, New York city, succeeding Mr.

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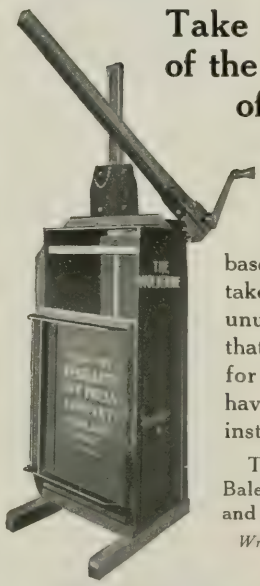

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Oliver H. Bartine, who is now managing the Flower Hospital, another New York institution.

The Braddock General Hospital, Braddock, Pa., has recently opened a new four-story wing, adding accommodations for 80 patients. The total capacity of the institution is now about 150 beds.

Construction work has been started on a new home for the nurses of the Norton Memorial Infirmary, Louisville, Ky. The building will be a three-story and basement brick structure, costing $40,000.

A petition has been filed with the board of supervisors of Lucas County, Ia., asking that an election be held on a proposition to issue bonds in the sum of $50,000 for the establishment of a county hospital.

The reconstruction and enlargement of the Springfield City Hospital, Springfield, O., is under consideration. Rapidly increasing demands upon the institution are said to have necessitated larger quarters.

The Georgia State Sanitarium at Milledgeville is preparing to erect a ward for white patients, a ward for negro patients, and a nurses' dormitory, the cost of the three structures to be about $200,000.

Miss S. B. Palmer, R. N., is leaving the Lebanon Hospital, New York city, where she has held the position of superintendent of nurses, to become superintendent of St. Luke's Hospital at Newburgh-on-Hudson.

The Ohio Valley Hospital, Steubenville, O., will open a new $200,000 home about June 1. The new hospital is said to be one of the most up-to-date in that section of the country, both in construction and equipment.

The Winnsboro Mills, Winnsboro, S. C., have opened an emergency hospital in charge of Miss Marion Utes, formerly connected with the Anderson County Hospital at Anderson, S. C., and the Roper Hospital at Charleston.

Miss Emily Holmes, for the last four years superintendent of the Chester County Hospital, West Chester, Pa., has been granted leave of absence for service in France with Base Hospital No. 10, organized at Philadelphia.

A movement has been started at Ellsworth, Kan., to build a new home for the Ellsworth Hospital. The present hospital was erected 20 years ago and is said to be no longer adequate to the needs of the section it was designed to serve.

Miss Margaret Templeton, assistant superintendent at the Nesbitt West Side Hospital, Wilkesbarre, Pa., has been appointed superintendent of that institution. Miss Templeton is a graduate of the Moses Taylor Hospital at Scranton.

The Sisters of St. Frances, of Dubuque, Ia., have purchased the LeMars General Hospital, LeMars, Ia., and will begin the erection of a new plant for the institution late in the summer. Accommodations for 75 patients are to be provided.

Mrs. Ella Muir, of Grand Rapids, Wis., has been appointed superintendent of the Brown County Sanatorium at West De Pere, in the same state, succeeding Miss Helen Scheller. Miss Jemima Bell, of Neenah, will be head nurse under Mrs. Muir.

Bids have been invited by the commissioners of Pierce County, Wash., on the erection of a children's ward at Mountainview Sanatorium, the county's tuberculosis hospital, at Lakeview, near Tacoma. The addition will have a capacity of 30 beds.

The Williamsburgh Hospital and the Eastern District Hospital, Brooklyn, N. Y., have recently been consolidated under the name "New Williamsburgh Hospital," and the joint organization is seeking a fund of $200,000 for the erection of a new plant.

The capacity of the Glen Lake Sanatorium, operated at Hopkins, near Minneapolis, Minn., by Hennepin County, is to be increased from 50 to 250 beds. Plans are already being drawn for the proposed extensions, which are estimated to cost $300,000.

Dr. W. J. Caesar, owner of the Barrett Sanatorium at Richmond, Cal., has sold that institution to E. G. Floyd, of San Francisco. Miss Katherine Hull, who has been

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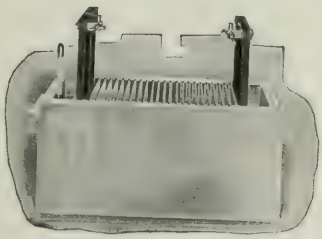

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in charge of the sanatorium for the last year, will continue as superintendent.

Plans have been completed for the proposed Lee Memorial Hospital at Johnstown, Pa., which is to be a handsome five-story building of fireproof construction. A fund for the creation of the institution was bequeathed by the late Mrs. Emily Lee, of Johnstown.

A campaign for funds to cancel a $100,000 building debt will be launched by the Tacoma General Hospital, Tacoma, Wash., June 15. Within the last two years this institution has put into service a complete new plant, including a nurses' home just lately opened.

The old mineral water sanitarium at Third and Main streets, Salt Lake City, is being replaced by a modern bathhouse to be known as the White Sulphur Mineral Baths. Local capitalists are financing the undertaking, which will require an expenditure of $100,000.

Plans have recently been drawn by Architect G. L. Lockhart, of St. Paul, Minn., for a $100,000 addition to the St. Paul Hospital, of that city. The building will be four stories high and will have a capacity of 60 beds. One entire floor will be reserved for operating suites.

At the request of the Bureau of Registration of Nurses of the California State Board of Health, the University of California, at its approaching summer session, will offer courses in hospital management, methods of teaching nursing, and the principles of public health visiting.

Miss Delia G. Dowling has resigned the position of superintendent at the Utica Homeopathic Hospital, Utica, N. Y., to take charge of the Hahnemann Hospital in New York city. Miss Julia E. Hardy, who was Miss Dowling's assistant, will succeed the latter at the Utica institution.

Miss Margaret S. Smylie, formerly superintendent of the Hamot Hospital, Erie, Pa., has answered a call to the U. S. Naval Hospital at Narragansett Bay. Miss Smylie has recently been engaged in Red Cross work. She was a service nurse before taking up her work at the Hamot Hospital.

Dr. Henry D. Hatfield, who for four years prior to March 4, last, was governor of West Virginia, has purchased a half interest in the Kessler Hospital at Huntington, W. Va., and is now associated with Dr. A. K. Kessler in the management of that institution, which has recently opened a new addition.

A stock company has been organized at Taft, Cal., to build a general hospital, which will be open to all reputable physicians. A modern building accommodating 16 patients and costing about $20,000 is planned. X-ray, hydrotherapeutic and electrotherapeutic apparatus will be included in the equipment.

The New York State Hospital Commission plans to increase the food production on the various state hospital farms under its control approximately 40 percent this year. The farms embrace 5,853 acres of tillable land, and in 1915 yielded food stuffs valued at $457,800, which represented a net profit of $111,149.

The American Hospital, Chicago, will soon open new quarters erected at a cost of $200,000. A considerable part of the building fund was contributed by prominent actors and actresses under an agreement by which the institution will admit members of the theatrical profession who need hospital care and are without means.

The city of Manchester, N. H., has a new isolation hospital, erected at a cost of $75,000. The plant consists of an administration building, a service building and a ward building, all being 2-story and basement structures of terra cotta building block, with red sand brick and granite trimmings. Accommodations for 46 patients have been provided.

Dr. Wilmer Krusen, director of the Department of Health and Charities, of Philadelphia, recently issued a bulletin recommending that every large office building, factory, department store or other establishment in the city, employing a large number of persons, be equipped for first aid and emergency hospital service, suggesting that in cases where the business is not large enough to warrant the regular employment of a physician arrange-

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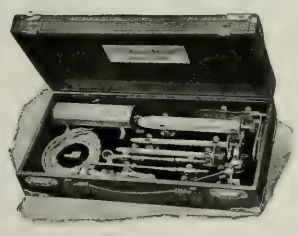

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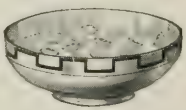

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ments should be made with those having offices in the neighborhood to answer emergency calls.

The Albany Hospital, Albany, N. Y., has lately affiliated with the Albany Medical College, a branch of Union University. All clinical professors of the university are now on the staff of the hospital. The laboratories have been equipped for teaching purposes and new laboratory branches, including chemical and physiological departments, have been added.

The Sacred Heart Hospital, conducted at Garrett, Ind., by the Sisters of St. Francis, and serving the people of DeKalb County and surrounding territory as a community institution, has launched a campaign to raise $80,000 for improvements, including an addition on which construction work has already been started and which it is expected will be finished by October 1.

The Salem Hospital Association, Salem, Ore., has decided upon plans for a new hospital, which will be a 3-story fire-proof structure, costing $125,000. The floors are to be of reinforced concrete, with the enclosing walls of hollow tile and brick, and the interior walls of tile. Space will be provided for 75 beds. The building and grounds now occupied by the Salem Hospital have been sold to the state.

Plans for the general hospital to be erected in Los Angeles by the Independent Order of Foresters call for a 2-story main building of brick construction, with ornamental tile and plastered exterior and a marble and tile entrance; also for two ward buildings, each two stories high and of architecture similar to that of the main structure. The complete plant is expected to cost approximately $75,000.

The Vine Grove Hospital, which it is announced will confine itself to tuberculosis cases, has just been opened at 3047 N. Taylor ave., St. Louis, by Dr. Chas. A. Trotman. The new hospital is a private one, for pay patients only, and is the first institution of its kind to be established in St. Louis. Miss Florence E. Clifford is in charge as superintendent and will be assisted by Miss T. S. Thorell. Sixteen patients can be accommodated.

The Norwegian Hospital Society, St. Paul, Minn., has had plans drawn for a $100,000 addition to the St. Paul Hospital, which it will maintain in that city. The new building will increase the capacity of the hospital 60 beds and provide space for complete new operating suites. About 100 patients can now be cared for at a time by the St. Paul Hospital. The total for last year was 22,280, which was an increase of 340 over the preceding year.

Dr. Joseph J. Roberts, who has held the position of acting medical superintendent at the Maryland General Hospital, Baltimore, since the death of Dr. Elmer Newcomer, the superintendent, last March, has recently been officially appointed to the position for another year. Dr. Roberts is a native of Connecticut and received his early education at the Phillips Exeter College, Exeter, N. H. He is a graduate in medicine from the University of Maryland.

THE MODERN HOSPITAL wishes to correct the statement recently made in these columns that the new sisters' hospital being established in Toledo, O., is to be conducted by the Sisters of Charity. It is the Sisters of Mercy who are establishing this hospital, and the undertaking is being directed by Mother Bernardine of Mercy Hospital, Tiffin, O. A hospital has been opened in temporary quarters, awaiting the completion of a fireproof building designed to accommodate 65 patients.

Jefferson Hospital, Philadelphia, opened a convalescent department last month on a farm near the town of Wayne, Pa. The use of the farm has been donated for one year by Alba B. Johnson, a trustee of the hospital, with the provision that in the event the experiment proves successful the gift will be made permanent. A home now on the grounds offers accommodations to 14 to 18 patients, and it is the purpose of the hospital authorities to increase the capacity to 50 beds in the near future.

A special avenue for service, not generally recognized by hospitals, is being given much consideration at the City Hospital, Jersey City, N. J., where Miss Hannah M. Creasey is conducting a free clinic for the correction of speech defects in children. Miss Creasey is a public school

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Mid-Summer Food Bulletin

During the warm summer months of June, July, and August, fats and other heat-producing foods are particularly undesirable, and repulsive to the discouraged appetite of the hospital patient. This affords you an excellent opportunity to *cut down the Butcher's Bill* and at the same time satisfy every food requirement of the body by substituting the Delicious, Sustaining, Health-building

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NEW YORK

teacher and her work at the hospital is entirely voluntary. She has devoted much study to the curing of stammering and other vocal troubles and is said to be having marked success with her unfortunate little patients.

Dr. Charles W. Pilgrim, who recently resigned the superintendency of the Hudson River State Hospital at Poughkeepsie, N. Y., to accept the chairmanship of the New York State Hospital Commission, has been nominated by the commission to be superintendent of the Manhattan State Hospital, New York city, succeeding the late Dr. William Mabon. Dr. Walter G. Ryon, formerly medical director of the State Hospital Commission, has been placed at the head of the Hudson River State Hospital.

A former patient of an Iowa hospital, who recently sued the hospital for $5,000 damages, alleging that she had negligently been placed in a room with a smallpox patient, and had contracted the disease, unknowingly communicating it to members of her family, lost the suit on the ground that the institution is a charitable one, and therefore, not liable for negligence on the part of its servants. The attorney for the plaintiff took the position that because the hospital is a corporation it should be held responsible.

The old San Lazaro Hospital at Havana, Cuba, has recently been razed to make way for a large tourist hotel, to be erected by American capital. The history of the San Lazaro, which was a home for lepers, dates back to 1681, when a priest named Pedro Alegre donated a portion of his heritage, on which he built three palm-leaf thatched houses and a kitchen as a permanent home for "Lazarinos," as the lepers were called. The building just destroyed was erected in 1861. It was for many years an object of morbid interest and curiosity to tourists from all parts of the world.

At the recent annual meeting of the North Dakota Nurses' Association, held at Devils Lake, officers were elected as follows: Miss Ethel Sanford, of Fargo, president; Miss Leila Halverson, Grand Forks, first vice-president; Miss Aida Langly, Jamestown, second vice-president; Miss Frances Riorday, Devils Lake, secretary-treasurer; Miss Minnie Traynor, Grand Forks, corresponding secretary. Miss Mildred Clark, of Devils Lake, and Mrs. Angela Boleyn, of Fargo, were named as delegates to attend the national convention at Philadelphia. The 1918 meeting of the association will be held at Fargo.

The legislature of the state of New York has appropriated $300,000 for the erection of a state hospital at the town of Marcy, near Utica. The new hospital is intended to relieve the crowded conditions at the Utica State Hospital and will be known as the "Utica State Hospital—Marcy Division." The building fund is a reappropriation of an equal sum set aside several years ago for the establishment of a similar institution at Mohansic, along the Hudson River Valley, which project was abandoned as a result of a protest from the city of New York declaring that the city's water supply would be endangered.

Dr. E. A. Baber, superintendent of the Dayton State Hospital, Dayton, O., has recommended to the state board of administration that a canning factory be installed at the Dayton institution as a means of conserving for winter use many of the vegetables grown on the hospital farm. Between 130 and 140 acres of the 631 acres under cultivation at this hospital are being planted to vegetables this year. As many as 4,000 gallons of tomatoes have been canned in a season in the hospital kitchen, but it is expected that greater facilities will be required to handle the present crop of this and other table necessities which it will be profitable to store in cans.

The principal building contracts have been awarded and excavation started for a fine, new plant for the Columbia Hospital, Milwaukee. The hospital building will be five stories high and will have a capacity of 80 beds. In addition there will be a power house and a home for the domestic help of the institution, with basement space for a laundry, the entire group costing approximately $215,000. Plans drawn by Architects Richard E. Schmidt, Garden & Martin, of Chicago, provide for exterior construction of reinforced concrete, brick and stone, with composition and promenade tile roof and clay or gypsum tile partitions. Floors will be of terrazzo, flint tile, and hardwood. The

The Hospital Fly

Hospital authorities know they cannot entirely prevent flies from entering. A few will get in despite careful screening, but

No Fly Should Be Allowed to Leave a Hospital or Sick-Room

It seems hardly necessary to call attention to the importance of preventing flies from leaving any room in hospital or home where there is a known or suspected communicable disease.

For the safety of the public, as well as the protection of the patients in the hospital, the hospital should be kept as nearly as possible free from flies.

Neither traps, poisons, nor fly-swatters destroy the germs which alone make the fly dangerous.

The Sanitary Fly Destroyer Par Excellence

is one that destroys the germs with the flies. Tanglefoot does this by coating both flies and germs with a varnish from which there is no escape. A fly caught on a sheet of Tanglefoot is embalmed.

In the war that is being waged on flies, Tanglefoot is the greatest agent, and destroys in a sanitary way over fifty billion flies annually, vastly more than all other means combined.

The originators of Tanglefoot Fly Paper builded better than they knew, for, since the discovery that flies are such important agents in the carrying of typhoid and other diseases, Tanglefoot Fly Paper has come to be recognized as one of the great sanitary agencies of the day.

Government Issues Warning Against Fly Poisons

Following is an extract from "The Transmission of Disease by Flies," Supplement No. 29, to the Public Health Reports, April, 1916:

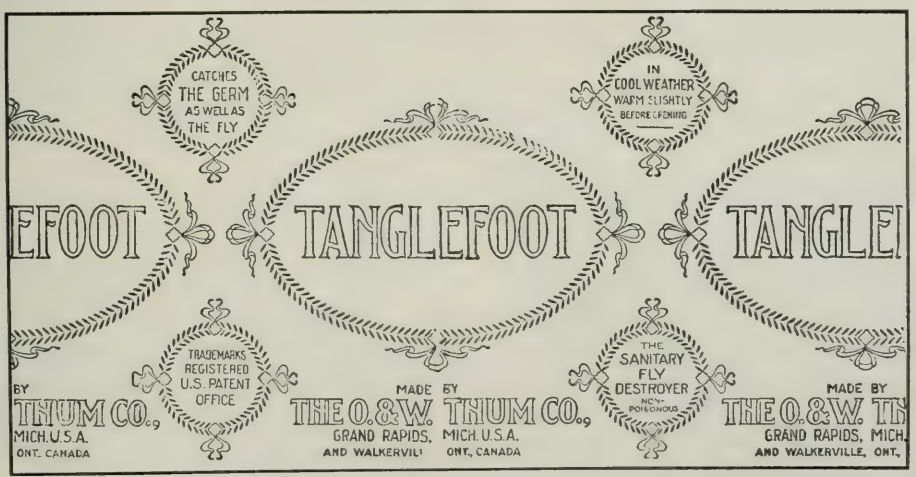
"Of other fly poisons mention should be made, merely for the purpose of condemnation, of those composed of arsenic. Fatal cases of the poisoning of children through the use of such compounds are far too frequent, and, owing to the resemblance of arsenical poisoning to summer diarrhea and cholera infantum, it is believed that the cases reported do not, by any means, comprise the total. Arsenical fly-destroying devices must therefore be rated as extremely dangerous, and should never be used, even if other measures are not at hand."

TANGLEFOOT

THE SANITARY FLY DESTROYER

NON-POISONOUS

CATCHES THE GERM WITH THE FLY


CATCHES THE GERM AS WELL AS THE FLY
IN COOL WEATHER WARM SLIGHTLY BEFORE OPENING
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TRADEMARKS REGISTERED U.S. PATENT OFFICE
THE SANITARY FLY DESTROYER NON-POISONOUS
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We also specialize in Rubber Sheeting for hospitals—genuine rubber, thoroughly vulcanized—highest quality.

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Does the Application of Scientific Management Pay in Hospitals?

The following excerpts from the letters of our clients will answer this question:

"During the first four months of 1914 and for the corresponding period of 1913, with only two additional admissions in 1914, the running expenses showed a decrease of $1,892.62."

"Under such an administration as now exists, the institution makes a just claim to the generous support of the thousands who live here."

"First attention was given to the hospital finances and to the manner of conducting its business affairs. Here a complete change was effected, an entirely new system was established, and the institution was placed upon an up-to-date business plane—the waste has been eliminated wherever possible."

"The results were even more satisfactory than had been anticipated."

Perhaps we can be of service to you

Cornelius S. Loder and Associates
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Hudson Terminal Bldg., 30 Church St., New York

equipment will include modulated steam heat, vitreous porcelain plumbing fixtures, drinking water system, sterilized water system, two electric elevators, one electric dumbwaiter, several kinds of sterilizers, silent signals, x-ray apparatus, and probably mechanical refrigeration and mechanically refrigerated mortuary boxes.

Hospital executives of North Dakota organized a state association at Fargo April 20—too late for mention in the May issue of THE MODERN HOSPITAL. The object was stated as "the promotion of efficiency and economy in hospital management, the assistance of those who are carrying the hospital burdens, and improvement in every way possible in the care of the sick." Officers were elected as follows: Mr. Paul A. Vik, St. Luke's Hospital, Fargo, president; Rev. J. D. Runsvold, Northwood Deaconess Hospital, Northwood, first vice-president; Miss Anna Roberts, Lakeside Hospital, Kenmore, second vice-president; and Miss Aida Langley, Parkview Hospital, Jamestown, secretary and treasurer. A purchasing committee was formed, with Mr. Vik, Dr. Gerrish, of Jamestown, and Sister Anna Amundsen, of Northwood, as members.

Columbia University in connection with the Presbyterian Hospital, New York city, is building a 500-bed military base hospital, which it hopes to have completed shortly after June 1. The new plant, which will consist of portable frame structures, is designed not only for the care of sick and wounded soldiers, but also as a training school for physicians and surgeons who wish to prepare themselves for army service. The personnel of the hospital will number 250, including 26 medical officers, 50 nurses, 25 nurses' aids, complete ambulance corps, stretcher bearers, orderlies, cooks, etc. The surgical directors will be Drs. Adrian V. S. Lambert, W. H. Bishop, and J. Bentley Squier. Dr. Samuel Lambert, dean of the College of Physicians and Surgeons at Columbia, will be the medical director. The hospital is intended as a model for war purposes and is being so constructed that it can be readily packed and moved should its services be needed in the field.

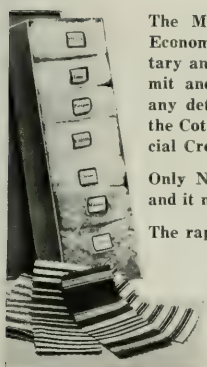
The New York State Legislature has recently created a "hospital development commission," the chief duty of which is to study the needs of the various state hospitals for the insane, epileptics, feeble-minded, etc., and outline for the legislature a comprehensive plan of development extending over a period of ten years. The commissioners, who will serve without pay, outside of railroad and hotel expenses, are instructed to recommend to the legislature of each year an expenditure amounting to one-tenth of the total recommended and approved for the entire ten-year period for all institutions, stating in detail what buildings or other improvements coming within the proposed appropriation for the year are most immediately necessary. The commission will also consider the future policy of the state for the care of the insane and whether advisable to make it part custodial and part hospital. Overcrowded conditions in practically all of the state hospitals are said to necessitate an extensive building program involving the ultimate expenditure of several million dollars.

In a test case brought by Dr. Louis Frank and Miss Margaret Hatfield against the Kentucky State Board of Health, the state court of appeals has ruled that the giving of an anesthetic by a trained nurse under a doctor's orders does not constitute practicing medicine, and that a physician's license is not required for such service. The decision is in line with an opinion of the attorney-general of Pennsylvania, published in the February issue of THE MODERN HOSPITAL, although the attorney-general of Tennessee has lately handed down an opinion to the opposite effect. Those who believe that a nurse is entitled to administer an anesthetic take the view that this is no more to be construed as practicing medicine than the giving of many other drugs commonly administered by nurses under a physician's direction, and that the abolishment of this right would virtually require every nurse to have a physician's license. Those who would have anesthetics administered only by physicians assert that the amount to be given cannot be prescribed in advance as in the case of other drugs; that judgment must be exercised and the condition of the patient closely watched to determine the effect, and that the proper exercise of these duties requires medical knowledge and practice not included in the nurse's training.

UNCLE SAM

wanted the best for his disabled soldiers. He got it when he equipped his Border Hospital Train with

STEARNS & FOSTER COTTON FELT MATTRESSES



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Only New, Clean, and Pure Cotton Felt is used, and it makes a most luxurious bed.

The rapidity with which they are displacing Hair Mattresses in Hospitals and Institutions generally—and the satisfaction rendered in every case—is conclusive evidence that they are the ideal Mattresses for Hospital usage.

Uncle Sam is a pretty good criterion for anyone to follow—investigate—send for the specimen box—which contains samples of the Cotton Felt and Ticking used in the Mattresses—self-convincing evidence of the high quality of the goods. Send for the box TODAY.

THE STEARNS & FOSTER COMPANY

Established 1846 CINCINNATI, OHIO

Largest manufacturers of Cotton Felt Mattresses in the world

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All Metal, White Enameled

Adjustable Bedside Table

WAY UP IN QUALITY --- WAY DOWN IN PRICE

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Under proper headings this column will present advertisements of Situations Wanted, Situations Open, Articles for Sale, etc.

When requested, replies will be received at the business office of THE MODERN HOSPITAL, Metropolitan Building, St. Louis, and will be forwarded promptly to the advertiser.

The charge for classified advertisements is 4 cents a word, with a minimum charge of $1.00, for single insertions. Orders for three or more times will be accepted at the rate of 3 cents a word, with a minimum charge of $1.00.

POSITIONS WANTED.

WE HAVE SEVERAL EXPERIENCED SUPERINTENDENTS and superintendents of nurses open for engagements; shall be very glad indeed to have them apply to you should you need such service. Aznoe's Central Registry for Nurses, 3544 Grand Boulevard, Chicago, Illinois.

ATTENTION, HOSPITALS

HAVE YOU HAD THE BEST RESULTS FROM YOUR SUPERINtendent's work? Is your surgical nurse the best for the salary paid? Are your supervisors perfectly satisfactory? Could a dietitian and housekeeper, $60, save you waste? Do your nurses leave without notice? We can overcome all these difficulties and supply you with the best ability at no more salary.

REMEMBER, WE HAVE SUPPLIED THE SMALLEST AND largest hospitals in 32 states this year. Within last 60 days have had calls from largest hospitals of Pittsburgh, Niagara Falls, Cleveland, Detroit, New Orleans, and Kansas City for superintendents, $65 to $125; supervisors, surgical nurses, general day and night nurses, and dietitians, $50 and up.

WE ARE IN TOUCH WITH NEW YORK, CHICAGO, AND WESTERN institutional nurses. Write us your wants. Our service is free to hospitals. Nurses with best references are solicited to write us. Address main office, Drivers Nurses' Registry, 3235 Charlotte street, Kansas City, Mo.

POSITION AS SUPERINTENDENT OF HOSPITAL WANTED BY graduate, registered nurse; applicant has had special preparation for institutional management at Teachers College, New York City, also several years' experience as superintendent; ready for position after June 1. Address A. B. T., THE MODERN HOSPITAL, Metropolitan Building, St. Louis.

POSITION WANTED AS SUPERINTENDENT OF MODERN HOSpital of not less than 60 beds; salary under $100 not considered. Address M. W. X., THE MODERN HOSPITAL, Metropolitan Building, St. Louis.

WANTED BY JULY 1, DIETITIAN'S POSITION IN WELL-REGUlated institution, with modern equipment, by graduate of recognized school, having training and experience in New York City hospitals; salary good. Address Dietitian, THE MODERN HOSPITAL, Metropolitan Building, St. Louis.

DIETITIAN WITH EXCELLENT TRAINING AND EXPERIENCE IN large city institution desires position in a modern hospital; good references furnished. Address M. W. B., THE MODERN HOSPITAL, Metropolitan Building, St. Louis.

HOSPITAL POSITION AS SUPERINTENDENT, SUPERINTENDENT of nurses, instructor, or assistant in large institution wanted by a graduate nurse with five years' experience in institutional work; best of references; South preferred. Address M. L. M., THE MODERN HOSPITAL, Metropolitan Building, St. Louis.

POSITION AS SUPERINTENDENT WANTED BY REGISTERED nurse, experienced in hospital organization; good financier; at present superintendent of 100-bed hospital; salary under $100 not considered. Address G. K. L., THE MODERN HOSPITAL, Metropolitan Building, St. Louis.

DIETITIAN WITH TWELVE YEARS' EXPERIENCE IN INSTITUtional work and marketing wishes position; salary, $75 per month; references furnished. Address M. U. M., THE MODERN HOSPITAL, Metropolitan Building, St. Louis.

DIETITIAN WITH EXCELLENT TRAINING AND EXPERIENCE desires position in up-to-date hospital; good references furnished. Address R. T. M., THE MODERN HOSPITAL, Metropolitan Building, St. Louis.

SUPERINTENDENCY OF HOSPITAL OR TRAINING SCHOOL wanted by registered graduate; salary under $100 and maintenance not considered; at present employed; references. Address K. M. A., THE MODERN HOSPITAL, Metropolitan Building, St. Louis.

DOMESTIC SCIENCE GRADUATE, WITH BROAD TECHNICAL training, wide experience in best hospitals of this country, unusual amount of executive ability, pleasing personality, and good teaching technic, wishes position in large hospital desiring efficiently managed dietary department; can purchase supplies if necessary. Salary under $100 per month and maintenance not considered. Address L. K. I., THE MODERN HOSPITAL, St. Louis.

CHIEF NURSESHIP WANTED. A GRADUATE NURSE, REGISTered in Ohio, with ten years' experience in operating room and in executive capacity, desires position as chief nurse in hospital in West or Southwest; references. Address F. I. M., THE MODERN HOSPITAL, Metropolitan Building, St. Louis.

Continued on page 50.

McK&R

LIQUID ALBOLENE

Doctor: **So you claim that Russian oil is better than American oil? LIQUID ALBOLENE, for instance.**

McK. & R.: It is. First, because Russian oil is a Naphthene oil free from Paraffin wax. American oil is usually—as it is advertised to be—Paraffin oil. It contains more or less Paraffin wax.

Doctor: **Doesn't Paraffin wax in mineral oil raise or increase its viscosity?**

McK. & R.: It may, but the efficiency of mineral oil does not depend upon viscosity!

Doctor: **What? How about Specific Gravity?**

McK. & R.: No, nor Specific Gravity.

Doctor: **You surprise me. Most people claim—**

McK. & R.: Never mind what most people "Claim," Doctor; work it out for yourself.

Doctor: **But a heavy oil.**

McK. & R.: The heavier the oil, the quicker it will tend to run through the canal. Quicksilver has high specific gravity, it is "heavy," but suppose you took a dose of it? Suppose you used a heavy viscid oil in your automobile cylinders; it would run through or stick and gum up, wouldn't it?

Doctor: **That is true.**

Send for *Albolene Argument No. 2.* *Samples.*

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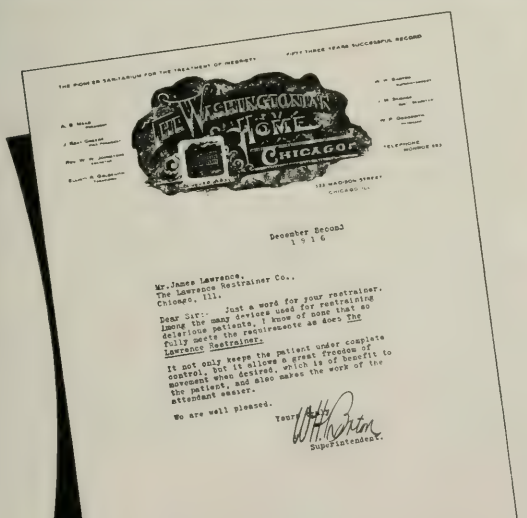
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Mr. James Lawrence,
The Lawrence Restrainer Co.,
Chicago, Ill.
Dear Sir:- Just a word for your restrainer.
Among the many devices used for restraining
delerious patients, I know of none that so
fully meets the requirements as does the
Lawrence Restrainer.
It not only keeps the patient under complete
control, but it allows a great freedom of
movement when desired, which is of benefit to
the patient, and also makes the work of the
attendant easier.
We are well pleased.
Yours
Superintendent.

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THE LAWRENCE "HARMONY" RESTRAINER

No locks. No buckles.
No binding of hands or feet.

Patient is allowed free use of both arms and feet without any chance of his reaching point of attachment, although he can sit up, or turn over on either side.

Patient may be sponged, bed linen or gown changed without removing or even readjusting the apparatus.

If the arms and feet MUST be fastened, we provide a simple additional arrangement for that purpose without extra charge.

Read the testimonial letter shown herewith. Send for descriptive circular and price today.

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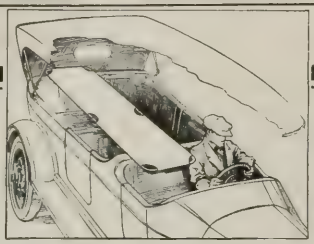

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Large or small, should be supplied with

FURSTADE AUTO-KOTS

to enable it to handle the many emergency cases that now have to wait for the ambulance.

Fits any 4-, 5-, or 7-passenger car; lies level on backs of seats; held securely in place and rides as comfortable as any ambulance. READY FOR USE ON A MINUTE'S NOTICE. When not in use, it folds to carry in the tonneau. Made of iron tubing, covered with heavy ducking; folds in the middle—6 feet long, 2 feet wide; weighs less than 15 pounds. Also made with legs for use in place of ordinary cot. These legs can be detached when the Kot is used in an automobile. ORDER AS MANY AS YOU NEED—TODAY. Immediate shipment guaranteed.

Standard Kot $12.00
Kot with folding legs attached.....$15.00

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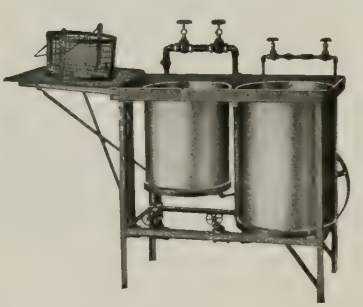

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DISH WASHING MACHINE

Standard for twenty years. Built in six styles and sizes. Saves 50 percent of labor. Eliminates 75 percent of breakage and chipping. Does away with dish wiping.

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Dish Washing Machines and Kitchen Specialties

CHICAGO NEW YORK SARNIA, ONT.

CLASSIFIED ADVERTISING.

Continued from page 48.

POSITIONS WANTED—Continued.

SUPERINTENDENT AND DIETITIAN DESIRES POSITION IN hospital in the West or Southwest; broad experience in leading hospitals of Cincinnati; references furnished. Address S. S. M., THE MODERN HOSPITAL, Metropolitan Building, St. Louis.

REGISTERED NURSE, AT PRESENT EMPLOYED AS PUBLIC health nurse, desires change; has had executive experience. Address M. C. P., THE MODERN HOSPITAL, Metropolitan Building, St. Louis.

DIETITIAN WITH HOSPITAL EXPERIENCE DESIRES POSITION; has Bachelor of Science degree; central states preferred. Address L. W. O., THE MODERN HOSPITAL, Metropolitan Building, St. Louis.

REGISTERED NURSE, GRADUATE LARGE EASTERN HOSPITAL, fifteen consecutive years' experience as superintendent (business manager) general hospital and training school, executive in 100- to 200-bed hospitals, desires, for family reasons, to secure similar position in far West; Pacific coast state preferred; exceptional credentials. Address Superintendent, THE MODERN HOSPITAL, Metropolitan Building, St. Louis.

TRAINED INSTITUTIONAL WORKERS SUPPLIED. OUR EMployment service is free to hospitals and institutions needing trained workers—dietitians, culinary supervisors, managing housekeepers, bacteriologists, chemists, sanitary inspectors, and allied workers. Our methods of investigation and selection insure efficiency. Advise us now of present or anticipated requirements. Institution Service Bureau, Battle Creek, Mich.

CENTRAL REGISTRY FOR NURSES OF THE NEW YORK COUNTY Registered Nurses' Association Agency, 132 East Forty-fifth street, New York City; telephone Murray Hill 8700; Irene B. Yocom, R. N., registrar. Graduate nurses for institutional positions and for private duty. Hourly nurses.

POSITION OF SUPERINTENDENT WANTED BY REGISTERED nurse who has had charge of a small hospital for the past five years. Address S. H., THE MODERN HOSPITAL, Metropolitan Building, St. Louis.

POSITION AS SUPERINTENDENT OF 100-BED HOSPITAL wanted by registered nurse experienced in hospital construction and organization; good financier; at present employed. Address C. D. L., THE MODERN HOSPITAL, Metropolitan Building, St. Louis.

A1 SUPERINTENDENT WHO LOWERS EXPENSES AND INcreases business wishes position; pleasant, agreeable administration guaranteed; best references in all lines of the work; employed; seeking larger field; salary reasonable. Address A. B. M., THE MODERN HOSPITAL, Metropolitan Building, St. Louis.

SUPERINTENDENCY OF SMALL HOSPITAL OR PRINCIPAL OF training school of larger hospital wanted by experienced university graduate nurse; best references in both branches of work. Address A. M., THE MODERN HOSPITAL, Metropolitan Building, St. Louis.

POSITIONS OPEN.

WE HAVE MANY VERY GOOD PAYING HOSPITAL positions now open, and are looking for several graduate nurses to fill them; write today for our free book—it will tell you all about our registry and the work we are doing. Aznoe's Central Registry for Nurses, 3544 Grand Boulevard, Chicago, Illinois.

MISS BAYLIES' FIFTH AVENUE DIRECTORY FOR nurses, 8 East Thirty-Seventh street, New York, N. Y. Open day and night. Hospitals and institutions throughout the United States supplied with superintendents, assistant superintendents, operating room nurses, supervising and head nurses, dietitians, and housekeepers. Only graduates with first-class credentials from recognized training schools are considered.

WANTED HEAD NURSE FOR SMALL TRAINING SCHOOL: MUST be registered; give full details in first letter; salary to start, $55 per month, with maintenance. Address L. L. H., THE MODERN HOSPITAL, Metropolitan Building, St. Louis.

WANTED—ASSISTANT SUPERINTENDENT FOR A LARGE WESTern hospital; one who has had considerable experience in the care and treatment of tuberculous patients; applicants should have some executive ability; to avoid unnecessary correspondence, address in own handwriting, giving age, married or single, school, experience, references, salary, etc. Address B. A. C., THE MODERN HOSPITAL, Metropolitan Building, St. Louis.

NURSES, GRADUATE, FOR GENERAL DUTY, $50; ALSO NURSES to have charge of small hospital, $60, and one visiting nurse, $75; also three nurses with experience in tuberculosis for tuberculosis sanitarium, $50; maintenance with each. Address Drivers Nurses' Registry, Kansas City, Mo.

GRADUATE NURSES WANTED FOR GENERAL DUTY IN A small surgical hospital in eastern West Virginia; give reference and experience in first letter. Address M. S. G., THE MODERN HOSPITAL, Metropolitan Building, St. Louis.

A GRADUATE OF A MEDICAL SCHOOL IS DESIRED BY THE Malden Hospital for the position of intern. For further particulars apply to R. W. French, M. D., 65 Washington street, Malden, Mass.

Continued on page 52

Send today for your copy of our attractive booklet "C," illustrating the newest models of the well-tailored "DIX-MAKE" Uniforms. It will help you choose the styles you want.

Sold by the leading department stores in nearly every city. Should you experience any trouble in getting the model you desire, please write us direct and we will see that you are promptly and satisfactorily supplied.

No. 661—Carefully tailored of pre-shrunken "Dixie-Cloth." A smart model with low neck, long sleeves, and mannish cuffs. The waist has three deep pleats on either side, lending added fulness.

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The sign of a better garment DIX-MAKE *Made in a better way*

REGISTERED TRADE MARK Imperial RUBBERIZED

WHEN you set out to buy good rubber sheeting, get it. Get "Imperial."

Get "Imperial" because it will remain soft and pliable long after equal processes of sterilization, dry heat and alkaline or saline solutions have ruined other sheetings.

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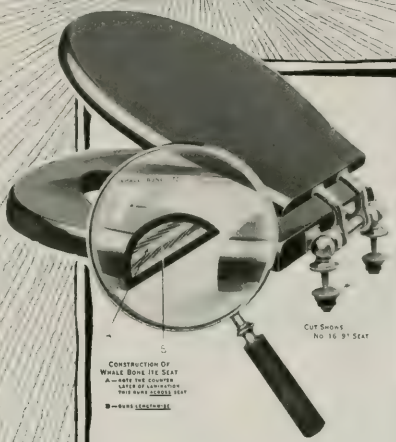
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CONSTRUCTION OF WHALE BONE ITE SEAT
A—GRAIN THE COUNTER LAYER OF LAMINATIONS THUS MAKES ACROSS SEAT
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WHY

This Seat is the Most Durable, Sanitary Seat Made

(A) Note the construction. Three layers of core. The grain runs **across** the seat.

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The Thick Covering, which has all the **properties** of **hard rubber,** but not the deteriorating features, is put on under hydraulic pressure, forming a concrete homogeneous mass—**no cracks—joints**—absolutely SANITARY, **of pleasing appearance.**

It is IMPERVIOUS—ACID-PROOF—two features essential to hospital fixtures.

Full size samples gladly supplied for test and inspection.

Write Whale-Bone-Ite Department ***NOW***

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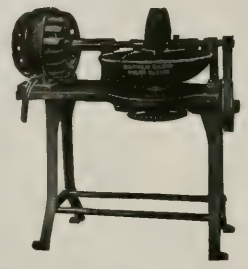
THE BRUNSWICK-BALKE-COLLENDER CO. 623 to 50 WABASH AVE. CHICAGO

A saving of 200 to 600%

in time and help—a big saving, too, in food

"BUFFALO" MEAT and VEGETABLE CHOPPER



This chopper will cut as much Sausage Meat or Hamburger Steak in 10 minutes as is possible to do by hand in half an hour—as much Cooked Meat, Hash, etc., as would take a hand chopper an hour to chop—as much Vegetables for soup in 5 minutes as could be chopped in two hours and a half by the hand-chop method—and the same for Chicken or Turkey for croquettes, Fruits and Vegetables for salads, and Crackers and Bread for puddings.

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CLASSIFIED ADVERTISING.

Continued from page 50.

POSITIONS OPEN—Continued.

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Continued on page 54.

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CLASSIFIED ADVERTISING.

Continued from page 52.

SCHOOLS, SPECIAL INSTRUCTION, ETC.—Continued

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Continued on page 56

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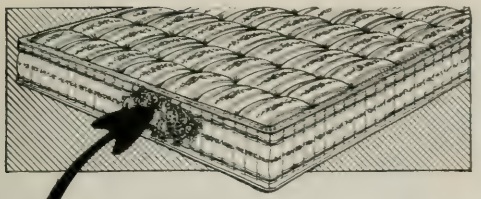
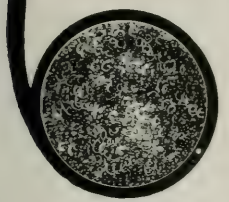


A Mattress that Can Be Sterilized



Make the mattresses you use an investment, not a yearly expense. Superintendents, show your board of directors that you save a big item yearly by installing SLUMBERON hair mattresses. Not only that, but the price is a great deal lower than you generally pay for hair mattresses—little more, in fact, than you would have to pay for the cotton or fiber mattresses that cannot be kept sanitary.

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ELSTAT
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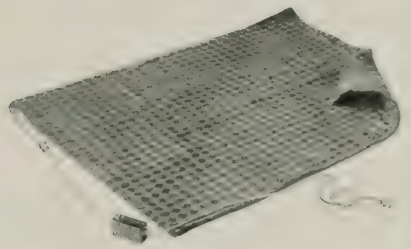

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Continued from page 54.

MISCELLANEOUS—Continued.

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A PROBLEM OF GREAT IMPORTANCE IN EVERY INSTITUTION is how to properly handle and serve milk, keeping it always perfectly sanitary. A sectional view of the Lyons Milk Urn is shown on page 69 of this journal, and a perusal of the descriptive matter which is there printed will inform you of the simple and efficient method offered through the use of this milk receptacle toward solving one of the vexing problems in hospital administration. Write for further information and prices to Lyons Sanitary Urn Company, Inc., 380 East 133d street, New York city.

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Our range for experience is wide because of the unusual combination of maternity and baby hospital. The private floor gives exceptional opportunity for observation of methods in general practice, owing to the many physicians in private attendance.

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We are prepared to give thorough and well-balanced three months' course in OBSTETRICAL NURSING. This course includes experience in modern methods in wards and private floors. Our obstetrical work among the city poor is valuable preparation for those wishing to qualify for the widening field of municipal sanitation and social welfare work. Weekly lectures, classes, and demonstrations are given, together with evening talks to nurses and patients on prenatal influences. The after-care of mother and child, hygiene, sanitation, and many instructive and interesting subjects.

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A three months' course is also offered in PEDIATRIC NURSING for those who desire special training in the care of children. This course is invaluable in district nursing and civic child-welfare work, including, as it does, experience in children's wards, observation wards, baby clinics, and Boarding-Out system, lectures, and classes. Formulæ-room instruction is included in each course.

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SOCIETY	PRESIDENT	SECRETARY	NEXT MEETING
American College of Surgeons	Dr. J. M. T. Finney, 1300 Eutaw Pl., Baltimore	Dr. Franklin Martin, 30 N. Michigan ave., Chicago.	October 26, New York
American Hospital Association	Dr. Robert J. Wilson, superintendent New York Hospitals, New York	Dr. William H. Walsh, Philadelphia	September 11, 1917, Cleveland
American Medical Association	Dr. Rupert Blue, Bureau of Public Health Service, Washington, D. C.	Dr. Alex. R. Craig, 535 N. Dearborn st., Chicago	June, 1917, New York
American Medico-Psychological Association	Dr. Chas. G. Wagner, superintendent Binghamton State Hospital, Binghamton, N. Y.	Dr. Henry C. Eyman, superintendent Massillon State Hospital, Massillon, O.	73d annual meeting, Astor House, New York, May 29-31, June 1, 1917
American Nurses' Association	Anne W. Goodrich, R. N., Teachers' College, Columbia University, New York	Katharine DeWitt, R. N., 45 S. Union st., Rochester, N. Y.	April 25–May 2, 1917, Philadelphia
Catholic Hospital Association	Rev. C. B. Moulinier, Marquette University, Milwaukee, Wis.	Dr. B. F. McGrath, Marquette University, Milwaukee	August 29-31, 1917, Chicago
Clinical Congress of Surgeons of North America	Dr. Fred B. Lund, 527 Beacon st., Boston	Dr. Franklin H. Martin, 30 N. Michigan ave., Chicago	October 22, New York
National League of Nursing Education	Sara E. Parsons, R. N., Massachusetts General Hospital, Boston	Effie J. Taylor, R. N., Johns Hopkins Hospital, Baltimore	April 25–May 2, 1917, Philadelphia
National Organization for Public Health Nursing	Mary F. Beard, R. N., 551 Massachusetts ave., Boston	Ella Phillips Crandall, R. N., 25 W. 45th st., New York	April 25–May 2, 1917, Philadelphia
State Hospital Associations			
Kansas Hospital Association	Dr. F. W. Shelton, Independence, Kas.	Dr. W. R. Dillingham, Sabetha, Kas.	
Ohio Hospital Association	Rev. A. G. Lohmann, superintendent German Deaconess Hospital, Cincinnati, O.	Howell Wright, 308 Anisfield Building, Cleveland, O.	May 22–24, 1917, Columbus
West Virginia Hospital Assn.	Dr. Wm. A. McMillan, superintendent McMillan Hospital, Charleston, W. Va.	Dr. W. H. St. Clair, superintendent Bluefield Sanitarium, Bluefield, W. Va.	May, 1917, Wheeling
Canada			
Canada Hospital Association	Dr. E. H. Young, Rockwood Hospital for the Insane, Kingston, Ont.	Dr. W. J. Dobbie, Toronto Free Hospital, Weston, Ont.	
England			
British Hospital Association	H. Wade Deacon, Royal Infirmary, Liverpool	Conrad W. Thies, J. Courtney Buchanan, Metropolitan Hospital, London	

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UNDERDOWN'S TUBING is made from smooth, standard stock. Soft and pliable, it renders long, perfect service. Furnished in all sizes and lengths.

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All Sizes. Sterilizes better than the rest.

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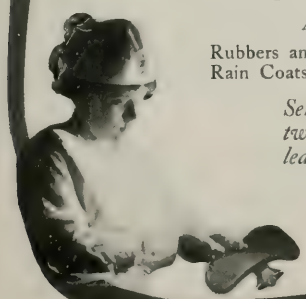

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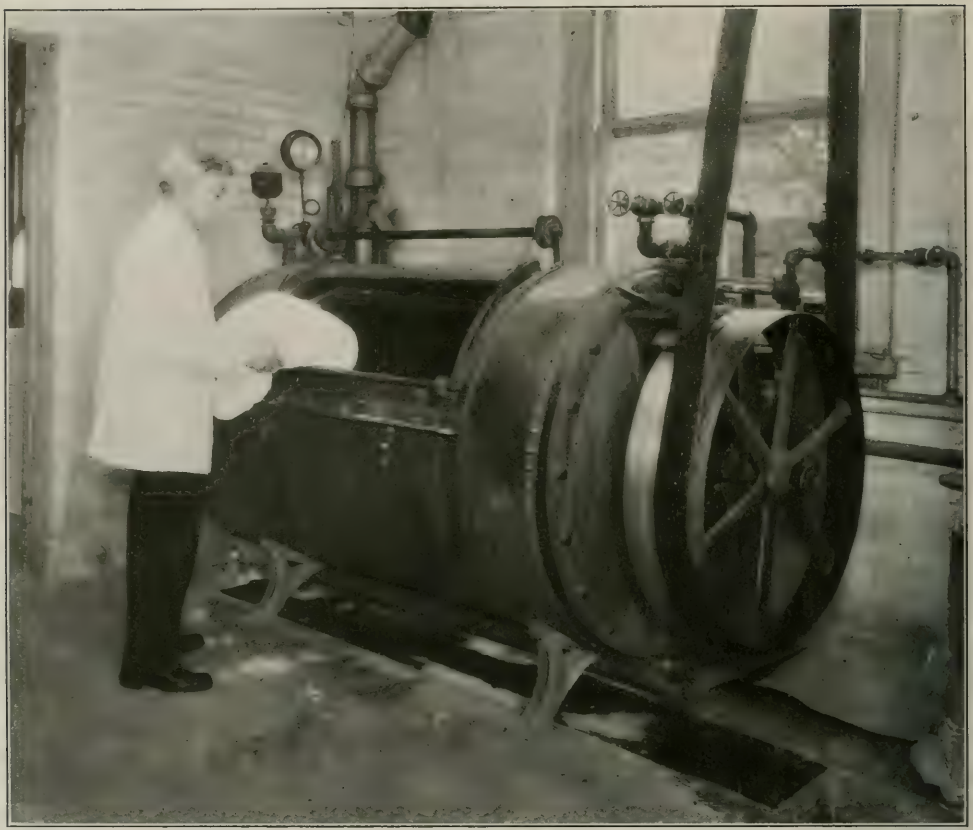
Enclosed is $1. Send, postpaid, one tube of Patchit.



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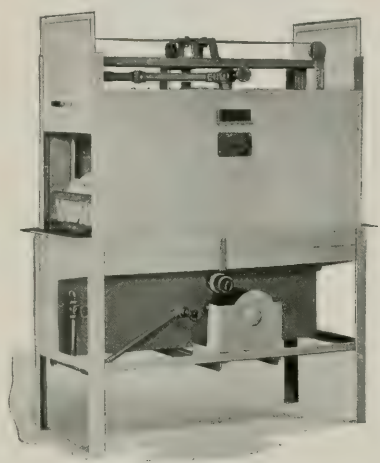

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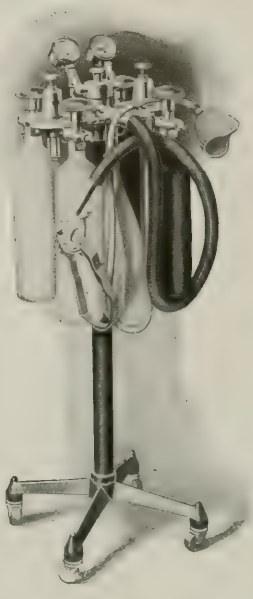

You, Too, Can Use This Method

Nitrous Oxid and Oxygen anesthesia or analgesia for obstetrics, painful dressings, etc., major or minor surgery, is best administered by means of

THE HEIDBRINK Automatic Anesthetizer

Surely you can do what 2,000 others have done. The automatic features of the Heidbrink have taken the mystery out of Nitrous Oxid. A routine method of administering gas anesthesias has been established, and you, too, can use it. Our catalog will tell you how.

THE HEIDBRINK COMPANY
529 South 4th Street **Minneapolis, Minn.**

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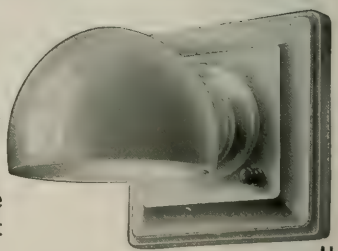
"AMERICA'S FINEST CABINET WOOD"

IS INCREASING ITS LEAD AS THE FAVORITE TRIM BOTH IN GREAT BUILDINGS AND SMALL RESIDENCES WHOSE OWNERS SEEK DISTINCTION AS WELL AS INTELLIGENT ECONOMY AND PROVED DURABILITY.

Buy Red Gum only from responsible Manufacturers, such as are admitted to the Gum Lumber Manufacturers' Association.

RED GUM

GUM LUMBER MANUFACTURERS' ASSOCIATION
1321 BANK OF COMMERCE BUILDING, MEMPHIS, TENN.



Handsome
Efficient
Hygienic

For a lighting fixture which fulfills the utmost requirements of hospital sanitation, combined with a handsome and dignified appearance, install the

TRADE MARK
AGLITE ALL GLASS
PATENTED

LIGHTING FIXTURE

No metal to tarnish or crack—no angles to collect dust. To clean, just wipe off the marble-white glass with damp cloth. Simple and durable in construction.

COMPLETE LITERATURE ON REQUEST
Send for printed matter illustrating many styles of the Aglite, also detailed description of the fixture

Luminous Unit Co. St. Louis, U. S. A.
NEW YORK, 30 Church St. CHICAGO, 19 S. 5th Ave.
BOSTON, Old South Bldg. PHILADELPHIA, 1020 Land Title Bldg.
SAN FRANCISCO, 639 Market St.

The saving;

The saving, advantages, and greater satisfaction in buying furniture for the hospital from *one source* and *from the manufacturer.*

The unattractive conglomeration of furniture in some hospitals is in most cases not caused by either the cheapness or inartistic pattern of the furniture used, but more because the different pieces or sets have been bought from here and there without any regard to a general scheme.

The "job lot" look brought about by such a practice can never be eliminated unless the institution be refurnished throughout, with just one or possibly two different styles of a suitable furniture lending a general furnishing scheme to the entire hospital.

Such a furnishing scheme can be obtained only by buying all furniture from one source, and, because of the consequent saving in freight rates and handling and packing costs, it is much more economical to buy direct from the furniture manufacturer.

The NORTHWESTERN Line

is particularly suited to hospital purposes. It is of a plain, pleasing, practical design, and of a most durable construction and finish, and, compared with the number of years of satisfactory service it affords, is a most inexpensive furniture for the purpose.

NORTHWESTERN FURNITURE is made in solid woods only, and in all finishes and a wide range of styles. It may be purchased direct or through your local dealer.

Begin now to eliminate the "Remnant Sale" hospital furniture arrangement. Write for the NORTHWESTERN CATALOG No. 51 today.

THE NORTHWESTERN MANUFACTURING COMPANY **Ft. Atkinson, Wis.**

AUTOMATIC
ENUNCIATOR SYSTEM

Instantly locates the person wanted, whether in the lobby or on the roof

A call for Dr. Jones comes in. The telephone operator turns to the transmitter of the AUTOMATIC ENUNCIATOR SYSTEM located at the telephone switchboard, and in a natural voice says, "Dr. Jones is wanted at the telephone, please."

Either Dr. Jones hears the call himself, or is told of it by a nurse or intern who knows where the doctor is, and he immediately steps to the nearest phone and is connected with the party making the call.

There is no waiting—no ringing of disturbing telephone bells about the hospital—no lost motion—and no mistakes.

Another case. The Head Nurse or Superintendent wants to know why the call from Room 46 is not answered, as it has been registered for several minutes on "the board" in the office. The Head Nurse or Superintendent turns to the phone, and asks the telephone operator to find out why the call from 46 remains unheeded.

The operator turns to the AUTOMATIC ENUNCIATOR and says: "Will Miss Smith please answer her call in 46?" Miss Smith hears the message. She knows it is "from the office," and the call is answered. The light on "the board" goes out. Efficiency is restored.

THE AUTOMATIC ENUNCIATOR SYSTEM is as easily and quickly installed in the hospital in operation as it is in the new one being built. The local electrician, hospital engineer, or "handy man" about every institution can install it just as satisfactorily as can the expert, and without disturbing patients or making any muss in rooms.

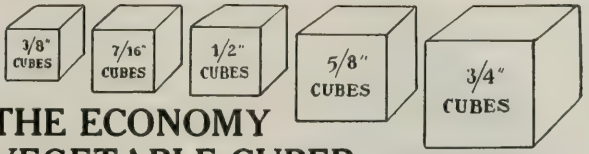
Let us send you a trial outfit—that is, A TRANSMITTER AND A REPRODUCING HORN—so you can temporarily install same where you and your Directors can observe its operation and the efficient service it affords.

Write for descriptive circular today.

AUTOMATIC ELECTRIC COMPANY

Enunciator Department **CHICAGO, ILL.**

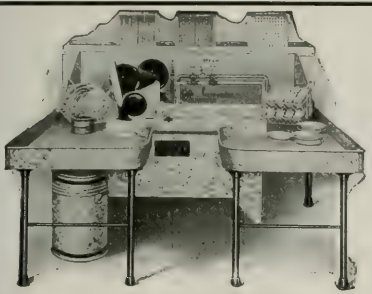
Which size do YOU prefer?



THE ECONOMY VEGETABLE CUBER CUBES Vegetables into any of the above sizes and CUTS "French Fries" 3/8", 7/16", 1/2", 5/8", 3/4", and SLICES Vegetables 3/16" and 1/4" thick. ***All three*** operations in ***one*** machine by interchanging removable parts. Sanitary. Strong. Ten times faster than by hand.

Sent on trial. *Ask for catalog.*

H. G. W. YOUNG, 61 Hanover Street, Boston, Mass.



A FEARLESS DISHWASHER
With Conveniently Arranged Tables

A DISHPAN would be of little use without a table, which is also true of a dishwasher.

Because of the efficiency of *Fearless* outfits, many of the best hospitals throughout the country will use none other.

We are planning dishwashing outfits every day. Give us your space and we will arrange the most convenient outfit for you.

Catalog Showing our Complete Line Sent on Request

Fearless Dishwasher Co., Inc. Pioneers in the Business

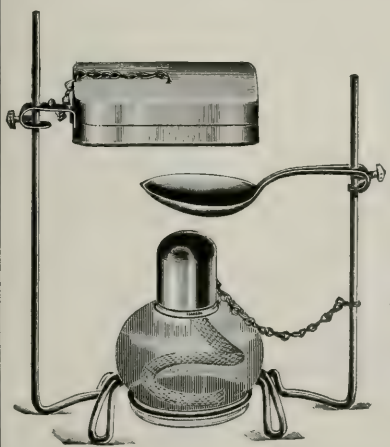
ROCHESTER, N. Y. Branch Offices—New York, San Francisco

THORNER BROTHERS

Specialists in Hospital Specialties

The Hughes Hypodermic Syringe and Needle Sterilizer

New York Post-Graduate Hospital Pattern



This sterilizer consists of an alcohol lamp with cap, a nickel-plated box large enough to hold a 2 c.c. Luer Syringe and Needle, a silver-plated spoon used to make the hypodermic solution, and a nickeled stand.

The lamp is rigidly secured to the stand, but can be easily detached for cleaning. The cap is attached to the stand by means of a chain. Both the syringe box and spoon can be adjusted in height by means of a thumb screw, enabling the nurse to handle the whole outfit with one hand.

Outfit, complete with box, spoon, lamp, etc., $17.20 per dozen. Single outfit for $1.50.

Some of our lines:

ENAMELWARE
GLASSWARE
RUBBER GOODS
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HARD RUBBER AND ALUMINUM COMBS
MISCELLANEOUS SUPPLIES

THORNER BROTHERS

Manufacturers and Importers of Aseptic Furniture, Sterilizers, Hospital and Surgical Supplies

140 Fifth Avenue **NEW YORK**

90% SAVING ON LABOR
50% SAVING ON VEGETABLES

A safe and sanitary means of paring vegetables

The Victoria Vegetable Paring Machine

The Victoria cuts paring loss, eliminates waste, and saves labor. Pares potatoes, white and sweet, carrots, turnips, and parsnips.

Made in eleven sizes.

OUR LARGEST MACHINE WILL PARE A BARREL OF POTATOES IN FIVE MINUTES

Used in many of the most prominent hospitals throughout the country and in the United States Government Institutions

Fully guaranteed.

Write to the nearest sales office.

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EXCLUSIVELY FOR

HOTELS, HOSPITALS, AND INSTITUTIONS

ESTABLISHED 1909

YOUNG ENOUGH

TO BE PROGRESSIVE

OLD ENOUGH

TO HAVE HAD OUR PRODUCTS THOROUGHLY TESTED

HOSPITAL P&G LINENS

57 Leonard Street
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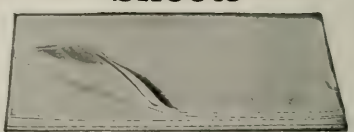
CORRESPONDENCE SOLICITED

"Pix" Double Strength Sheets



These sheets are made to withstand the hard wear that Hospital sheets must endure and will be found absolutely satisfactory. We strongly recommend them to you because of their exceptional wearing qualities. Carefully and closely woven of selected cotton thread. The finished product has a good body. Measurements are taken before the goods are hemmed.

No.		Doz.	No.		Doz.
5Y644	54x90 in.	$ 9.40	5Y1622	72x108 in.	$13.95
5Y645	54x99 in.	10.35	5Y2062	81x 90 in.	12.65
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5Y2076	63x99 in.	11.60	5Y1623	81x108 in.	15.10
5Y2061	72x90 in.	11.70	5Y2063	90x 90 in.	13.60
5Y2077	72x99 in.	12.85	5Y2079	90x 99 in.	16.30

PILLOW CASES

No.		Doz.	No.		Doz.
5Y2066	36x45 in.	$2.95	5Y2067	38½x45 in.	$3.15
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Prices Good Until Present Stock Is Sold

Write for Our Catalog E17N

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ALBERT PICK & COMPANY

208-220 W. Randolph St. Chicago

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No waiting for the Salesman if you order the Stanley way—write, wire, or telephone. Get present day's lowest prices and instant service.

Stanley Laundry Supplies are sold at exceedingly low prices consistent with high quality, owing to our ability to purchase raw materials and supplies on a large scale.

Get Stanley Prices Today

Stanley Laundry Supplies *for* Hospitals and Institutions

Stanley's—Laundry Supplies mean to you quick service, economy in prices, and a house with a reputation for its fair treatment of customers.

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Get our free reference book, which gives you information regarding the composition and best use of Stanley Products in the Laundry. You will find this 72-page book extremely instructive in every detail of Laundry work. Every Laundry Manager should be posted on the most modern Laundry Supplies. Write us for this booklet today. You will find it very helpful in solving your Laundry Problems.

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628-630 West 30th Street **NEW YORK CITY**

STANLEY'S FLAKED CAUSTIC SODA

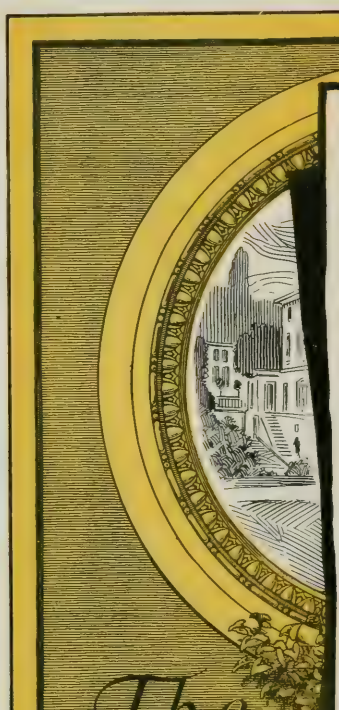
Guaranteed 98% pure Caustic Soda, in 90-lb. Steel Drums, Flaked so as to dissolve quickly. No danger of flying particles to burn the hands, eyes, or linen when used.

FLEXENE STARCH

Absolutely pure and acidless. It has the full strength, and will not hurt the hands of the operators or harm the most delicate fabrics. Get our prices on one barrel or carload.

REVOLUTION BLUE or MONARCH BLUE

Neutral and pure for all classes of Flat Hospital Work, colored shirts, linens, giving the goods a fresh, clear color each time they are washed.



The
MO
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Vol. VIII

In this, the June issue, we wish to present

Our *Quality Line* Includes

Clinical Thermometers	Rubber Goods
Hospital Glassware	Safety Pins
Absorbent Cotton	Enameled Ware
Sanitary Paper Goods	Hypodermics

Miscellaneous Surgical Supplies

SPECIAL JUNE OFFER

"Ross-Royal" Clinical Thermometers

Order now and save money. So that we may fill ON TIME as many orders as possible, we must get a fair share of our patrons to order well in advance. You can do so. We quote special price of $50.00 per gross on Clinical Thermometers, if you allow us six weeks' time to make delivery. Pear-shaped rectal thermometers at $51.00 per gross. Orders accepted to July 1st only at these prices.

Samples sent upon receipt of 40c in stamps.

ROSS-ROYAL COMPANY

1328 Broadway New York

Recognized as a part of standard hospital equipment

'Ever-Ready' Safety Razors

provide a quicker, painless, and far safer shaving of patients in preparing them for operation than is afforded by the dangerous and unsatisfactory old-style razor.

There is always a new, clean, and sharp blade ready for immediate use, or the same blade may be satisfactorily used for several shavings—with even longer use by resharpening old blades with an Ever-Ready Stropping Machine.

The satisfactory shaving of patients with an "Ever-Ready" Safety Razor is easily and quickly mastered by even the most inexperienced nurse, and without any danger of injury to the patient.

Send $1.00 for Trial Outfit. Your Money Refunded if Dissatisfied

Extra Ever-Ready Blades, 6 for 30 cents

AMERICAN SAFETY RAZOR CO., Mfrs., Johnson and Jay Streets, Brooklyn, N. Y.

FIG. 45

Your Equipment
Not Complete
without

LANE SANITARY CANVAS BASKETS

Manufactured by

W. T. LANE & BROTHER
Poughkeepsie, N. Y.

Beautiful **birch**

Par Excellence
For the Hardwood Finish
In Hospitals

The woodwork and doors in a hospital should be beautiful and cheerful—usually they had best not be too costly—but they *must* be sanitary. "Beautiful **birch**" is not only beautiful, taking *all* finishes perfectly, including white enamel; it is not only economical, costing much less than most other high-class cabinet woods; it is also hard, mar-proof, durable, close-grained and so—the ideal finish for the modern hospital.

FREE: Sample panels variously finished and an informative booklet. Please write.

Northern Hemlock & Hardwood Manufacturers' Association
213 F. R. A. Bldg., Oshkosh, Wisconsin

STAND BEHIND THE MEN BEHIND THE GUNS

Buy A LIBERTY LOAN BOND and HELP WIN THE WAR—Interest, 3½%.

Issued by the United States Government—Denominations: $50, $100, $500, $1,000, $5,000, $10,000, $50,000, and $100,000. First payment as low as One Dollar. You have until August 30, 1917, to pay in full for your bonds.

Ask any Banker, Postmaster, Express Company, or Merchant for an Official Application Blank, and APPLY FOR YOUR LIBERTY LOAN BOND TODAY—a tribute to the flag, and the safest investment in the world.

"Wars cannot be conducted without money. It is the first thing to be provided. In this war it is the most immediate help—the most effective help that we can give. We must not be content with a subscription of two billion dollars—we must oversubscribe this loan as an indication that America is stirred to the depths and aroused to the summit of her greatness in the cause of freedom. Let us not endanger success by complacent optimism. Let us not satisfy ourselves with the reflection that someone else will subscribe the required amount. Let every man and woman in the land make it his or her business to subscribe to the Liberty Loan immediately, and, if they cannot subscribe themselves, let them induce somebody else to subscribe. Provide the Government with the funds indispensably needed for the conduct of the war, and give notice to the enemies of the United States that we have billions to sacrifice in the cause of liberty. Buy a Liberty Bond today—do not put it off until tomorrow. Every dollar provided quickly and expended wisely will shorten the war and save human life."

SECRETARY W. G. McADOO, May 14, 1917.

A Liberty Loan Bond is Uncle Sam's Promise to Pay, and He is Worth $225,000,000,000

THE STEPHENSON
LYNN MASS
TRADE MARK

Underground Garbage Receiver

Keeps your garbage out of sight in the ground, away from the cat, dog, and typhoid fly. An air ventilated receiver—no odor.

The most sanitary, satisfactory, and durable garbage receiver ever put on the market.

Opens with foot—hands never touch.

THE STEPHENSON
LYNN MASS
TRADE MARK

Spiral Truss-Ribbed Ash Barrel

Finished with a rolling edge top and bottom, forming a finger grip. See our spiral truss ribs, ends all closed.

A smooth sanitary barrel, with inside seams all soldered.

A stronger and more durable barrel, yet so constructed that it is lighter in weight than the average.

SOLD DIRECT FROM FACTORY—SEND FOR OUR CATALOGUE
12 YEARS ON THE MARKET—LOOK FOR OUR TRADE MARKS

C. H. STEPHENSON, Manufacturer, 32 Farrar Street, LYNN, MASS.

BED GOWNS

FOR MEN AND WOMEN PATIENTS—ON APPROVAL AT OUR EXPENSE

No. 28. Patients' Pepperell Jeans Sheeting Bed Gowns. *Double yoke front.* Wide hems and *tapes* in back and open all the way down. 36 inches long. Long sleeves. Price, on approval, PREPAID, per dozen,

$8.50

No. 28X. Patients' very best quality INDIAN HEAD Bed Gowns. *Double yoke front.* Wide hems and *tapes* in back and open all the way down. 36 inches long. Long sleeves. Absolutely and positively the BEST GOWN TO BE HAD AT ANY PRICE. No other manufacturer, to our knowledge, uses as fine a quality of material as is used in this gown, a material purposely selected because of its inherent and potential power to withstand and resist chemical action, laundry powders, blood stains, wear and tear. This garment will absolutely and positively outwear and outlast any other gown. Price, on approval, PREPAID, per dozen,

$9.50

FREE TRIAL OFFER

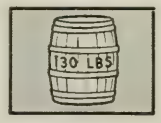
You take NO RISK, you take NO CHANCE. We send these garments, TRANSPORTATION CHARGES PREPAID, and if on arrival you are not HIGHLY PLEASED with them, you just fire them back to us *at our expense.*

THE HOSPITAL NURSES' UNIFORM MFG. CO., 410-12-14 Elm Street, Cincinnati, Ohio

With each barrel of Soapalite A Mineral Soap is also sent: —

—a saving of five minutes per load—

—an increased soap efficiency of 30%—



—and a material saving in fabrics.

SOAPALITE is a white powdered mineral soap, not caustic filled, nor is it a causticized ash. It is purely a mineral product, containing neither grease nor fat, and is far more penetrating, energetic, and cleansing than soap, yet harmless to the most delicate materials.

SOAPALITE is not another extra supply, but is really a necessity, eliminating many of the supplies now required.

Packed in barrels of 250 pounds.

Write for descriptive booklet.

The Electric Smelting and Aluminum Co.
Lockport, New York
Los Angeles San Francisco

A fence about a hospital is like a cash register—it **pays for itself** in the **saving** it insures. Not only in the time of employees, but material things are not so apt to be carried away when the only way out is through a central gate.

STEWART IRON FENCE
"The Standard of the World"

is available in many patterns adapted for hospitals. It is the fence that Time respects. Be sure and write for our 1917 Catalog. It is an Encyclopedia of Fence Information and is fully illustrated. We will be glad to send it free. **We want representatives** to sell our line to hospitals. Write today for our attractive proposition.

THE STEWART IRON WORKS CO.
695 Stewart Block CINCINNATI, OHIO
World's Greatest Iron Fence Builders

"KELENE"

PURE CHLORIDE OF ETHYL

For Local and General

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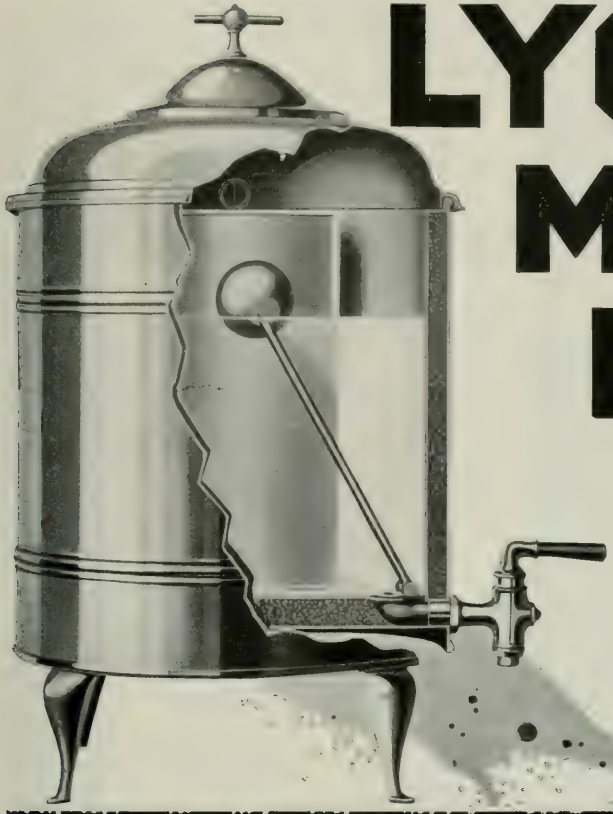
LYONS MILK URN



A proper mixture of milk and cream :: No waste :: No time lost :: Sanitary

to the highest degree

As shown in the above illustration, the Lyons Milk Urn is so constructed that the proper proportion of cream is drawn through the tube connected with float and the Milk drawn from the bottom of the urn, giving the correct mixture at all times, even to the last drop in the urn.

The urn is heavily insulated, and thus cold milk will remain cold without using ice. Each urn is provided with an ice chamber which will produce as cold milk from the use of 10 pounds of ice as is obtained from the use of 100 pounds of ice by the can and dipper method.

You can fill 100 nursing bottles in five minutes with properly mixed milk without any waste.

The Lyons Milk Urn should be in every Hospital Ward.

The cover has a double shoulder, inside and out, which prevents all dirt, dust, flies, germs, or foul odors from getting into the urn. All parts are easily sterilized.

Five glasses of milk can be drawn from the Lyons Urn while one is being filled by the time-taking, milk-wasting can and dipper method.

LYONS SANITARY URN CO., Inc., 380 E. 133d St., New York

Foster the 'eye-appeal'

Milapaco
Lace Papers of Character

Lace Paper Doilies

—a more artistic, sanitary, and economical way of dressing trays and dishes than the cloth napkin or doily

More artistic because of the dainty pattern of the doily and the varying sizes for the different sized dishes.

More sanitary because the paper doily is used once by the one person and is then thrown away or burned.

More economical because of the first cost of the paper doily or napkin as compared with that of linen, and cheaper in the end because of the entire elimination of laundry costs.

A method of tray and dish dressing that both the nurse and patient will appreciate. A practice which will prove a source of satisfaction and saving to you, the hospital.

A wide line of various designs and different qualities at prices to accommodate the means of every institution.

Write for our booklet, "A Thousand and One Ways," which, though published for the merchant, will satisfactorily show and describe the Milapaco Line to you. Write today.

Milwaukee Lace Paper Company
Milwaukee, Wis.

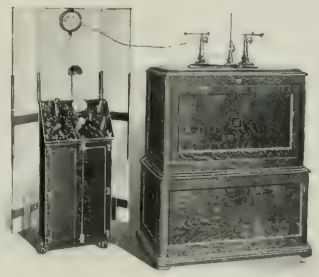
Victor

—by the Treasurer of the Victor Electric Corporation:

CHOOSE your roentgen and electro-medical equipment as your patients choose you their medical counsellor—on the basis of integrity, experience, progressiveness, service, and mutual profit.

I only wish that I could convey even a slight conception to you, of the sincerity of purpose and the co-ordination of effort there is behind the officers and their associates to turn over to you the best possible value for the amount you have to invest and still give you *real* personal service.

Fred A Wiggin



The Improved Model Snook Interrupterless Roentgen Generator—the latest product of the Victor factory.

Incorporated in its design are several important improvements—the result of "moving forward with the times."

The capacity has been materially increased, but the price remains the same:

220 volt direct current $1550.00
220 volt, 60 cycle alternating current . $1450.00

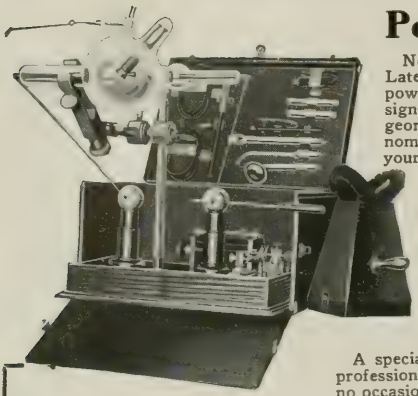
Complete data is given in the new "Model Snook Bulletin."

VICTOR ELECTRIC CORPORATION

Manufacturers of a Complete Line of Roentgen and Electro-Medical Apparatus

CHICAGO ∴ NEW YORK ∴ CAMBRIDGE

Address all inquiries to 236 S. Robey St., Chicago



Portable X-Ray Outfit

CARRY IT TO YOUR PATIENTS

New Model, the simplified W. C. Co. Portable X-Ray Generator. Latest improvements. Our new patents. Entirely new features. Very powerful. Undamped oscillations with an uneven amplitude. Designed and perfected to meet the needs of every physician and surgeon. Remarkably simple and easy to operate, and surprisingly economical. You should have the aid of fluoroscopy and radiography in your practice. The needs of modern practice demand it. **The W. C. X-Ray Portable Generator is the ideal outfit for the modern hospital.** Ask for particulars of this new, improved outfit, which is so easy to operate and so superior in efficiency.

EXTRA HOSPITAL EQUIPMENT

The modern hospital should have the extra equipment of a portable X-Ray Generator. The W. C. X-Ray Generator is so light, compact, and easily carried about that it can be taken to the patient's room. This is of great service to both physician and patient in many cases.

SPECIAL PRICE

A special introductory price will be quoted to hospitals and the medical profession direct for a limited time. This price is so low that you will have no occasion to delay the purchase of an X-Ray Outfit.

Book Free

Write today for booklet describing W. C. Portable X-Ray Generator. We will send you all particulars of special low price along with full description of the new, improved outfit. Write promptly and learn about the advantages of the new improvements that make the W. C. Generator necessary in every hospital.

We have moved to our big new modern laboratories in Racine.

WESTERN COIL COMPANY
Box 20 RACINE, WIS.

Positive Guarantee

Every W. C. Outfit is positively guaranteed. It is made of best material, handsomely finished, and represents the highest degree of workmanship. This outfit is extremely dignified and finished in appearance, and is imposing and attractive.

Send Coupon.—Your request on the coupon, in a letter, or on a postcard brings all information. We guarantee this special price offer only in a letter, as it is limited. Send for booklet and information promptly.

Standard High Frequency

We are exclusive makers of the Standard High Frequency Apparatus and a large line of Electro-therapeutical Instruments.

INFORMATION COUPON

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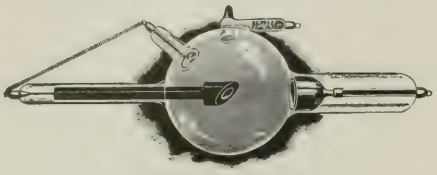

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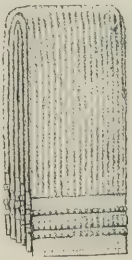

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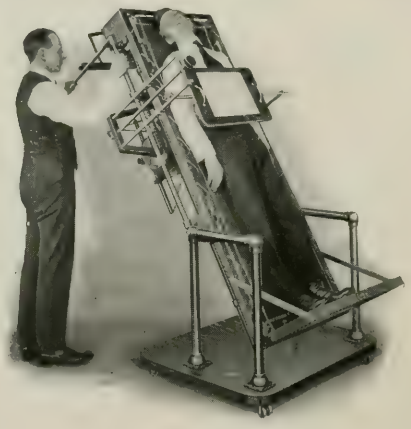

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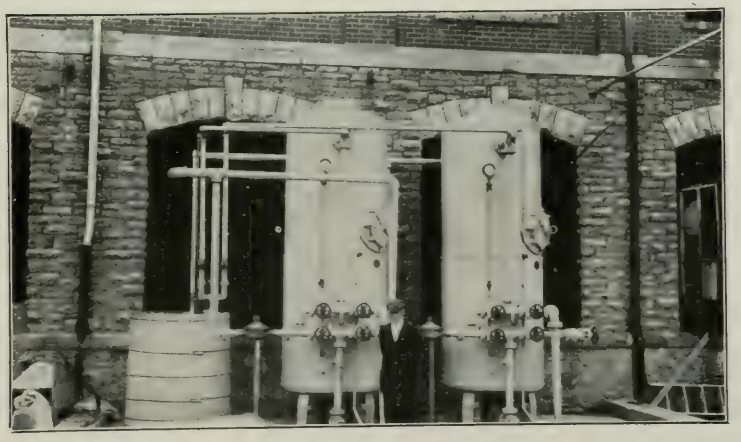

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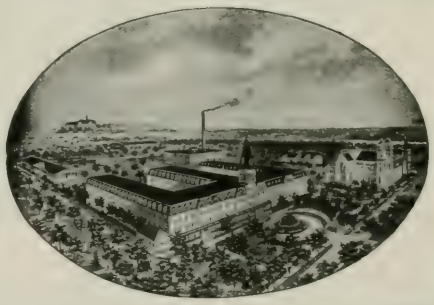

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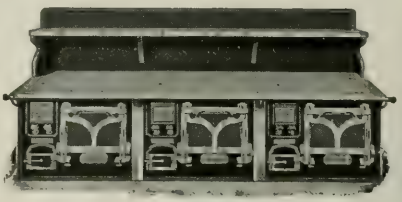

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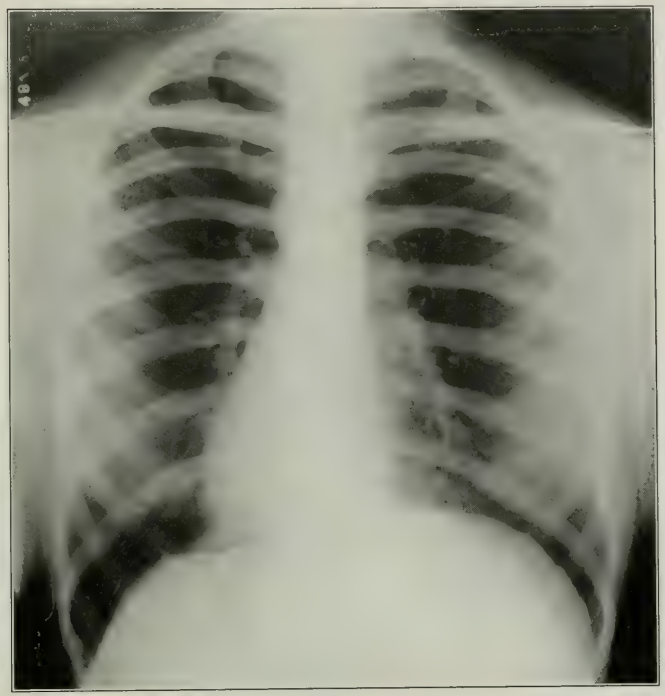

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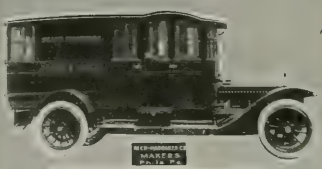

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Back Rests.
Baker & Sons, J. R 48
Butler Back Rest Company 107
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Calumet Tea and Coffee Company 41
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Edmands, Walter S 111
Beds.
Bernstein Manufacturing Company 22
Dougherty & Co., Inc., H. D 99
Foster Bros. Manufacturing Company 117
Hall & Sons, Frank A 105
Northwestern Manufacturing Company 63
Simmons Company 31
Smith & Davis Manufacturing Company 113
Union Wire Mattress Company 122
Bed Attachments.
Butler Back Rest Company 107
Bedspreads.
Pick & Co., Albert 66, 74, 97, 102
Beverages.
American Wine Company 97
Anheuser-Busch Brewing Association 120
Calumet Tea and Coffee Company 41
Clicquot Club Company 17
Kaffee Hag Corporation 27
Wander Company, The ..... 3d cover
Welch Grape Juice Company 9
Blankets.
Rhoads & Fillman 16
Sachs, Frederick J 25
Books.
Blakiston's Son & Co., P 52
Putnam's Sons, G. P 14
Borax.
Pacific Coast Borax Company 110
Bottles (Nursing).
Hygeia Nursing Bottle Company 33
Bronze Tablets.
Matthews Company, Jas. H 61
Butter Cutting Machine.
Butter Serving Machine Company 5
Casters.
Faultless Caster Company 105
Jarvis & Jarvis 79
Catgut, Ligatures, etc.
Chapin Company, Inc., L. F 92
Davis & Geck, Inc 29
Hollister-Ashland Laboratories 23
Johnson & Johnson 15
Meinecke & Co 32
Cereal Foods.
Hecker Cereal Company 12
Quaker Oats Company 38, 42
Rice Cereal and Milling Company 20
Shredded Wheat Company 21
United Cereal Mills, Ltd 26
Wheatena Company 41
Chairs (Invalid and Reclining).
Eames Company 82
Worthington Company 105
Chambers.
Cordley & Hayes ("Fibrotta") 80

Chemicals. Page
Mallinckrodt Chemical Company 40
Neale Chemical Company 16d
China (Vitrified Ware for Cooking).
Hall China Company 121
Mohawk Clay Products Company 116
Choppers (Meat and Vegetable).
Smith's Sons Company, John E 52
Cleansing Agents.
Calumet Tea and Coffee Company (Washing Powder) 41
Electric Smelting and Aluminum Company 68
Ford Company, J. B 122
Hoffman Company, Geo. Wm 62
Pacific Coast Borax Company 110
Standard Oil Company 127
Thompson Chemical Company 101
Cocoa and Chocolate.
Calumet Tea and Coffee Company 41
Coffees.
Calumet Tea and Coffee Company 41
Coffee (Caffeine Removed).
Kaffee Hag Corporation 27
Construction Materials.
Associated Tile Manufacturers 18
Best Bros. Keene's Cement Company 111
Dahlstrom Metallic Door Company 102
Gum Lumber Manufacturers' Association 62
Mississippi Wire Glass Company 104
Northern Hemlock and Hardwood Mfrs.' Assn. 66d
Southern Cypress Manufacturers' Association 129
Stewart Iron Works 68
Vitrolite Company 28
Cooking Utensils.
Hall China Company 121
Mohawk Clay Products Company 116
Coolers.
Cordley & Hayes ("XXth Century") 80
McCray Refrigerator Company 93
Monroe Refrigerator Company 95
Coolidge Tubes.
General Electric Company 13
Cotton.
Lewis Manufacturing Company 107
Maplewood Mills 25
Southern Aseptic Laboratories 106
Dairy Machinery and Supplies.
Ladd Company, John W 21
Dakin's Solution Apparatus.
Feick Brothers 88
Dental Cream.
Pepsodent Company 130
Dentifrices.
McKesson & Robbins 49
Pepsodent Company 130
Dishwashing Machines.
Blakeslee & Co., G. S 50
Bromley-Merseles Manufacturing Company 61
Burton Range Company 82
Fearless Dishwasher Company 65
Hamilton-Low Company 100
Disinfecting Wounds (Apparatus for).
Feick Brothers 88
Mulford Company, H. K ..... 2d cover
Disinfectors.
American Sterilizer Company 14
Bernstein Manufacturing Company 22
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Doilies and Tray Covers (Paper).
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Doors (Fireproof).
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Drain-Pipe Cleaner.
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Sedgwick Machine Works 10
Storm Manufacturing Company 121
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Westinghouse Lamp Company 119
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Continued on page 87.

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DIRECTORY OF HOSPITAL SUPPLIES

Continued from page 85.

Fences (Iron). Page
Stewart Iron Works... 68

Fire Escape Devices.
Vonnegut Hardware Company... 12

Fire Pails.
Cordley & Hayes ("Fibrotta")... 80

Flavoring Extracts.
Calumet Tea and Coffee Company... 41

Floor Covering.
Farr & Bailey Manufacturing Company... 112
Boyle & Co., Inc., John... 101

Floor Dressings.
Muller & Co., Franklyn R... 124

Floors.
American Flooring Company... 103
Mas-Oleum Floor Manufacturing Company... 100
Muller & Co., Franklyn R... 124

Fly Destroyer.
Thum Company, O. & W... 45

Food Products.
California Fruit Growers Exchange... 4th cover
Calumet Tea and Coffee Company... 41
Capital City Dairy Company... 86
Carnation Milk Products Company... 57
Coast Products Company... 43
Hansen's Laboratory, Chr... 103
Haserot Canneries Company... 55
Hecker Cereal Company... 12
Kaffee Hag Corporation... 27
Mammala Corporation... 9
Pfaffmann Egg Noodle Company... 16d
Quaker Oats Company... 38, 42
Rice Cereal and Milling Company... 20
Royal Baking Powder Company... 35
Shredded Wheat Company... 21
United Cereal Mills, Ltd... 26
Wander Company, The... 3d cover
Welch Grape Juice Company... 9
Wheatena Company... 41

Foods (Special).
Borden's Condensed Milk Company... 15
Calumet Tea and Coffee Company (Brosia Meals)... 41
Horlick's Malted Milk Company... 8
Mellin's Food Company... 19
Wander Company, The (Ovaltine)... 3d cover

Fruit (Canned).
Coast Products Company... 43

Fruit (Fresh).
California Fruit Growers Exchange... 4th cover

Fumigants.
Neale Chemical Company... 16d

Furniture (Private Room Specialties).
Northwestern Manufacturing Company... 63

Furniture.
American Bank Protection Company... 124
Baker & Sons, J. R... 48
Bernstein Manufacturing Company... 22
Columbus Aseptic Furniture Company... 80
Dougherty & Co., H. D... 99
Ensign, Inc., W. S... 57
Farwell Company, John V... 36
Hospital Supply Company... 1
Inner Braced Furniture Company... 121
Moore Bros... 106
Richardson, Wright & Co... 96
Smith & Davis Manufacturing Company... 113

Furniture (Operating Room).
Bernstein Manufacturing Company... 22
Hospital Supply Company... 1
Wocher & Son Company, Max... 116

Garbage Burners.
Prescott & Son, J. B... 44
Stearns & Co., E. C... 30

Garbage Cans.
Rochester Can Company... 39
Stephenson, C. H... 66d

Gas-Oxygen and Gas-Oxygen Apparatus.
Heidbrink Company... 62
Toledo Technical Appliance Company... 108

Gauze.
Johnson & Johnson... 15
Lewis Manufacturing Company... 107

Gelatine and Gelatine Desserts.
Calumet Tea and Coffee Company... 41

Glassware (Scientific).
Steele Glass Company... 30

Ginger Ale.
Clicquot Club Company... 17

Grape Juice.
Welch Grape Juice Company... 9

Heating Pads (Electric). Page
Electric Controller Company... 55
Goodwill Electric Company... 30

Heating Systems and Specialties.
American District Steam Company... 123
Minneapolis Heat Regulator Company... 104
Sarco Company, Inc... 95

Hospital Equipment (General).
Bernstein Manufacturing Company... 22
Betz Company, Frank S... 128
Pick & Co., Albert... 66, 74, 97, 102

Hospital Equipment (Specialties).
American District Steam Company... 123
Castle Company, Wilmot... 25
Cudahy Curled Hair Works... 55
Eames Company... 82
Faultless Caster Company... 105
Feldman Manufacturing Company... 37
Hall & Sons, Frank A... 105
Hospital Supply Company... 1
Individual Towel and Cabinet Service Company... 40
Inner Braced Furniture Company... 121
McCray Refrigerator Company... 93
Monroe Refrigerator Company... 95
Moore Bros... 106
Mott Iron Works, J. L... 24
Northwestern Manufacturing Company... 63
Peoria Auto-Kot Company... 50
Pfaudler Company... 20
Richardson, Wright & Co... 96
Security Window Guard Company... 92
Simmons Company... 31
Stearns & Co., E. C... 30
Stearns & Foster Company... 47
Wocher & Son Company, Max... 116
Worthington Company... 105

Hospital Garments.
Angelica Jacket Company... 8
Mandel Brothers... 99
Pick & Co., Albert... 66, 74, 97, 102

Hospital Organization and Management.
Loder and Associates, Cornelius S... 46

Hospital Supplies.
American Safety Razor Company... 66c
Baker Linen Company, H. W... 4
Ensign, Inc., W. S... 57
Farwell Company, John V... 36
Hospital Supply Company... 1
Johnson & Johnson... 15
Kny-Scheerer Company... 94
Lewis Manufacturing Company... 107
Mandel Brothers... 99
Meinecke & Co... 32
Metropolitan Hospital Supply Company... 108
Miller Rubber Company... 101
Ostermoor & Co... 53
Pick & Co., Albert... 66, 74, 97, 102
Powell & Giberson Linen Company... 66
Reid Bros... 16a
Rhoads & Fillman... 16
Ross Royal Company... 66b
Sharp & Smith... 106
Stanley Supply Company... 115
Thorner Brothers... 65
Wocher & Son Company, Max... 116

Hot Water Bottles.
Davol Rubber Company... 118
Miller Rubber Company... 101
Reid Bros... 16a
Stanley Supply Company... 115

Hydrotherapeutic Apparatus.
Mott Iron Works, J. L... 24

Ice Boxes.
Brecht Company... 27
McCray Refrigerator Company... 93

Ice Choppers.
Wharton, Jos. S. L... 99

Ice Cream Freezers.
Peerless Freezer Company... 79
Whitney Co., F. E... 94

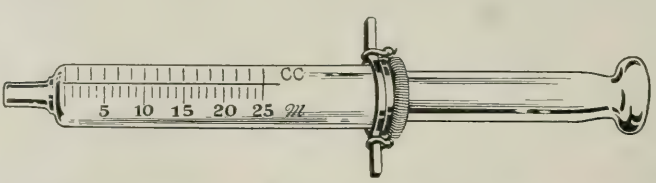
Ice Making Machinery.
Baker Ice Machine Company... 53

Incinerators.
Prescott & Son, J. B... 44
Stearns & Co., E. C... 30

Instruments (Diagnostic and Therapeutic).
Eimer & Amend... 88
Electro Surgical Instrument Company... 41
Kny-Scheerer Company... 94
Taylor Instrument Companies... 103

Continued on page 89.

This Is



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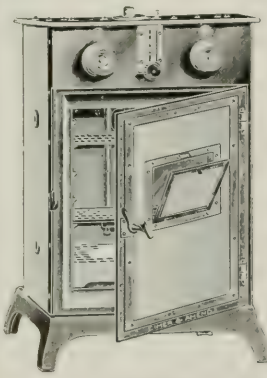

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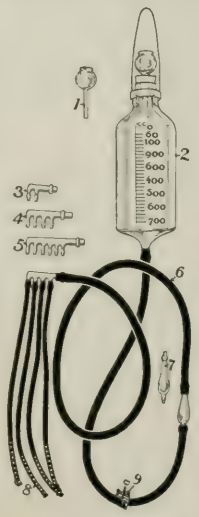

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DIRECTORY OF HOSPITAL SUPPLIES

Continued from page 87.

Instruments (Surgical). Page
Becton, Dickinson & Co. 88
Kny-Scheerer Company 94
Sharp & Smith 106

Intercommunicating Telephone System.
Automatic Electric Company 61

Invalid Elevators.
Sedgwick Machine Works 10

Kitchen Equipment.
Born Steel Range Company 10
Bromley-Mersicles Manufacturing Company 61
Burton Range Company 82
Butter Serving Machine Company 5
Dougherty & Sons, Wm. F 65
Blakeslee & Co., G. S 50
Fearless Dishwasher Company 65
Hamilton-Low Company 100
Hall China Company 121
Imperial Machine Company 65
Kelso & Co. 66
Read Machinery Company 16c
Reinhold Manufacturing Company 96
Smith's Sons Company, John E 52
Van Range Company, John 115
Young, H. G. W 65

Laboratories (Analytical).
Columbus Laboratories 126

Laboratories (Pathological).
Mulford Company, H. K. 2d cover

Laundry Chutes.
Pfaudler Company 20

Laundry Equipment.
American Ironing Machine Company 108
American Laundry Machinery Company 29
National Marking Machine Company 4
Raymond Manufacturing Company 60
Troy Laundry Machinery Company, Ltd. 96
United States Hoffman Company 16d
Valve Sales Company 60

Laundry Supplies.
Electric Smelting and Aluminum Company 68
Ford Company, J. B. (Soda, "Wyandotte," Yellow Hoop) 122
Pacific Coast Borax Company 110
Stanley Laundry Supply Company 66a

Lighting Fixtures and Specialties.
Kny-Scheerer Corporation 94
Luminous Unit Company 62
Scanlan-Morris Company 98
Westinghouse Lamp Company 119

Linens.
Baker Linen Company, H. W 4
Ensign, Inc., W. S 57
Fick & Co., Albert 66, 74, 97, 102
Powell & Giberson Linen Company 66
Rhoads & Fillman 16
Sachs, Frederick J 25

Linoleum.
Farr & Bailey Manufacturing Company 112

Liquid Paraffin.
Squibb & Sons, E. R 2
Standard Oil Company 109

Lockers, Wardrobes, etc.
American Bank Protection Company 124
Betz Company, Frank S 128
Terrell's Equipment Company 110

Lumber.
Gum Lumber Manufacturers' Association 62
Northern Hemlock and Hardwood Mfrs.' Assn. 66d
Southern Cypress Manufacturers' Association 129

Macaroni, Spaghetti, Noodles.
Pfaffmann Egg Noodle Company 16d

Malt Preparations.
Anheuser-Busch Brewing Association 120

Margarine.
Capital City Dairy Company 86

Marking Machine (for Linens).
National Marking Machine Company 4

Marking Tapes (for Linens).
Washable Name Tape Company 54

Mattresses.
Bernstein Manufacturing Company 22
Cudahy Curled Hair Works 55
Dixie Cotton Felt Mattress Company 128
Ostermoor & Co. 53
Stearns & Foster Company 47

Memorial Tablets (Bronze).
Matthews Company, Jas. H 61

Metal Polish.
Dimling, J. H 90
Hoffman Company, Geo. Wm 52

Microscopes and Microtomes. Page
Spencer Lens Company 114

Milk Dispensers and Receptacles.
Lyons Sanitary Urn Company 69

Milk Products.
Borden's Condensed Milk Company 15
Carnation Milk Products Company 57
Horlick's Malted Milk Company 8
Mammala Corporation 9

Mineral Waters.
Celestins Vichy 118

Mixing Valve.
Hoffmann & Billings Manufacturing Company 124

Mop Cloths.
Acme Mill Ends Company 94

Mortuary Boxes.
Brecht Company 27
Lorillard Refrigerator Company 113

Nursing Bottles.
Hygeia Nursing Bottle Co. 33

Nurses' Uniforms and Supplies.
Dix & Sons Company, Henry A 51
Hays & Green 57
Nurses' Outfitting Association 100

Nurses' Training School (Obstetrical and Pediatric).
New York Nursery and Child's Hospital 56

Olive Oils.
Calumet Tea and Coffee Company 41

Operating Room Lighting Equipment.
Kny-Scheerer Corporation 94
Scanlan-Morris Company 98

Operating Tables and Table Pads.
Bernstein Manufacturing Company 22
Hospital Supply Company 1
Ross Royal Company 66b
Wocher & Son Company, Max 116

Oranges.
California Fruit Growers Exchange 4th cover

Pails (Galvanized).
Rochester Can Company 39

Paints and Varnishes.
Toch Brothers 56

Paper Balers.
Ypsilanti Hay Press Company 38

Paper Specialties.
Milwaukee Lace Paper Company 70

Pasteurizing Equipment.
Ladd Company, John W 21

Pharmaceuticals.
Abbott Laboratories 11
Mulford Company, H. K. 2d cover
Parke, Davis & Co. 6
Squibb & Sons, E. R. 2

Pillows.
Bernstein Manufacturing Company 22

Pituitary Liquid.
Parke, Davis & Co. 6

Plaster.
Best Bros. Keene's Cement Company 111

Plumbing Fixtures.
Mott Iron Works, J. L. 24

Plumbing (Specialties).
Brunswick-Balke-Collender Company 51
Hoffmann & Billings Manufacturing Company 124
Leonard-Rooke Company 16

Polishes.
Dimling, J. H. 90
Hoffman Company, Geo. Wm. 52
Standard Oil Company 127

Printing (Hospital).
Myerson Printing Company, Sam'l F. 122

Publicity for Hospitals.
Currier, Everett C. 44

Radium.
Radium Chemical Company 48

Ranges.
Born Steel Range Company 10
Burton Range Company 82
Van Range Company, John 115

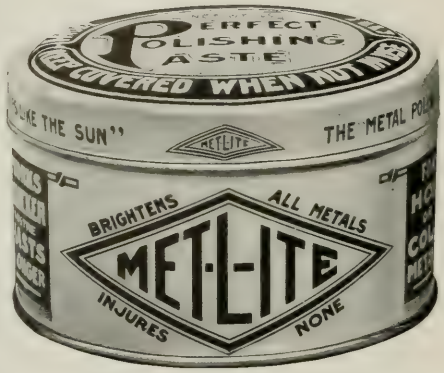
Razors.
American Safety Razor Company 66c

Record Systems.
Burkhardt Company 54

Refrigerators.
Brecht Company 27
McCray Refrigerator Company 93
Monroe Refrigerator Company 95

Refrigerating Machinery.
Baker Ice Machine Company 53
Brecht Company 27
Kroeschell Bros. Ice Machine Company 92

Continued on page 91.



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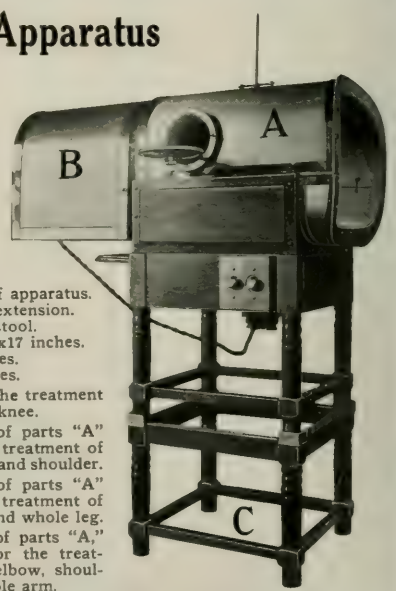

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Continued from page 89.

Restraint Apparatus. — Page
Lawrence Restrainer Company — 49

Resuscitating Devices.
Draeger Oxygen Apparatus Company (Pulmotor) — 117
National Resuscitating Apparatus Company — 95
Respiratory Apparatus Company — 82

Rubber Gloves and Goods.
Davol Rubber Company — 118
E. Z. Patch Company — 10
Foster Rubber Company — 125
Lincoln Rubber Company — 115
Miller Rubber Company — 101
Para Rubber Products Company — 59
Stanley Supply Company — 115
Thorner Brothers — 65
Underdown's Sons, A. R. — 58

Rubber (Liquid for Repairing).
Para Rubber Products Company — 59

Rubber Heels.
Foster Rubber Company — 125
O'Sullivan Rubber Company — 115

Sanatoriums.
Battle Creek Sanitarium — 77
Mercer Sanitarium — 79
Milwaukee Sanitarium — 78
Moody's Sanitarium, Dr. — 78
Oconomowoc Health Resort — 79
Sacred Heart Sanitarium — 78
Towns Hospital, Chas. B. — 76
Waukesha Springs Sanitarium — 78

Scales (Bath and Commercial).
Fairbanks, Morse & Co. — 23
Mason, Davis & Co. — 27

Scientific Glassware.
Steele Glass Company — 30

Screens.
Cincinnati Fly Screen Company — 19

Serums and Vaccines.
Mulford Company, H. K. — 2d cover

Sheets and Sheeting (Cotton).
Bliss, Fabyan & Co. — 20

Sheets and Sheeting (Waterproof).
Archer Rubber Company — 12
Armstrong Impervo Company, E. A. — 46
Lewis Manufacturing Company — 107
Meinecke & Co. — 32
Metropolitan Hospital Supply Company — 108
Ostermoor & Co. — 53
Rosenwald & Weil — 51
Ross Royal Company — 66b
Stanley Supply Company — 115
Underdown's Sons, A. R. — 58
Utica Steam & Mohawk Valley Cotton Mills — 97

Signal and Call Systems.
Automatic Electric Company — 64
Chicago Signal Company — 102
Holtzer-Cabot Electric Company — 4
Relay Signal Company — 86

Silver Cleaning Compound.
National Silver Plating Company — 58

Soaps (Surgical and Toilet).
Johnson & Johnson — 15

Sphygmomanometers.
Taylor Instrument Companies — 103

Spices.
Calumet Tea and Coffee Company — 41

Splints (Wire Gauze).
Wright Wire Company — 16b

Sputum Cups (Paper).
Meinecke & Co. — 32

Starch.
Stanley Laundry Supply Company — 66a

Sterilizers.
American Sterilizer Company — 14
Bernstein Manufacturing Company — 22
Betz Company, F. S. — 128
Castle Company, Wilmot — 25
Hospital Supply Company — 1
Kny-Scheerer Company — 94
Northwestern Steel and Iron Company — 19
R. U. V. Company — 104

Stretchers.
Bernstein Manufacturing Company — 22
Hospital Supply Company — 1
Peoria Auto-Kot Company — 50

Sugar Containers.
Spengler-Loomis Manufacturing Company — 39

Surgeons' Operating Gowns.
Pick & Co., Albert — 66, 74, 97, 102

Surgical Dressings. — Page
Hall Laboratories, Wilford — 54
Johnson & Johnson — 15
Reid Bros. — 16a

Surgical Sutures.
Davis & Geck, Inc. — 29
Hollister-Ashland Laboratories — 23
Meinecke & Co. — 32

Syringes and Needles (Hypodermic).
Becton, Dickinson & Co. — 88
Metropolitan Hospital Supply Company — 108
Thorner Brothers — 65

Tables (Bedside).
Baker & Sons Co., J. R. — 48

Talcum Powder.
Mennen Chemical Company, Gerhard — 81

Teas.
Calumet Tea and Coffee Company — 41

Telephone System (Intercommunicating).
Automatic Electric Company — 64

Temperature Control Devices (Water).
Leonard-Rooke Company — 16
Minneapolis Heat Regulator Company — 104
Sarco Company, Inc. — 95

Thermometers (Clinical).
Becton, Dickinson & Co. — 88
Taylor Instrument Companies — 103

Thermometer Trays.
Sharp & Smith — 106
Willis & Co., Wm. V. — 110

Tile.
Associated Tile Manufacturers — 18

Toilet Seats.
Brunswick-Balke-Collender Company — 51

Toilet Specialties.
Mennen Chemical Company, Gerhard — 81

Towels.
Acme Mill Ends Company — 94

Ultra Violet Ray Apparatus.
R. U. V. Company — 104

Uniforms.
Dix & Sons Company, Henry A. — 51
Hays & Green — 57
Nurses' Outfitting Association — 100

Vegetable Cubers.
Young, H. G. W. — 65

Vegetable Parers.
Blakeslee & Co., G. S. — 50
Dougherty & Sons, Wm. F. — 66
Imperial Machine Company — 66
Kelso & Co. — 66
Reinhold Manufacturing Company — 96

Water Heater (Instantaneous).
Feldman Manufacturing Company — 37

Water Softening Apparatus.
Permutit Company — 75

Wheels (Rubber-tired).
Bernstein Manufacturing Company — 22
Jarvis & Jarvis — 79

Window Guards.
Security Window Guard Company — 92

Window Shades.
Draper Shade Company, Luther O. — 107

Wines.
American Wine Company — 97

Wire Gauze Splints.
Wright Wire Company — 16b

Wire Glass.
Mississippi Wire Glass Company — 104

X-Ray Apparatus.
Kelley-Koett Manufacturing Company — 72
Meyer Company, Wm. — 74
Picker, James — 73
Victor Electric Corporation — 71
Wappler Electric Company — 72
Western Coil Company — 72

X-Ray Plates.
Eastman Kodak Company — 83
Picker, James — 73

X-Ray Tubes.
Kesselring X-Ray Tube Company — 74
General Electric Company — 13

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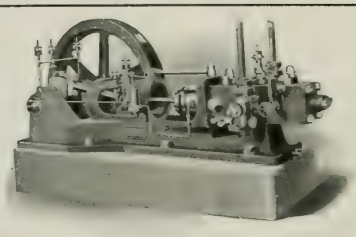

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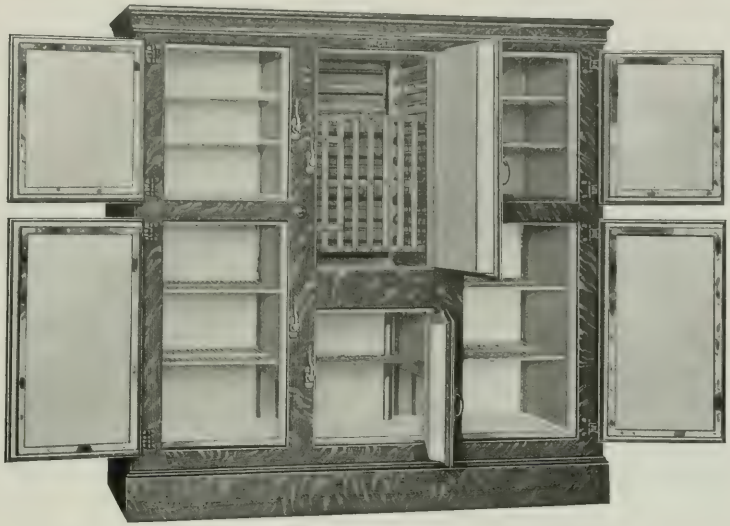

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The McCray patented system of refrigeration maintains a constant current of cold, dry air throughout every compartment. All the foods are kept fresh, cool, and wholesome. The linings of Opal Glass, White Enamel, and Odorless Wood are sanitary and easily cleaned.

There is a McCray either in stock sizes or made to order for every requirement. McCray Refrigerators give you always sanitary refrigeration.

SUGGESTIONS AND PLANS SENT FREE

Send us your floor plan and we will send you refrigerator suggestions. The practical draftsmen in our complete drafting department are thoroughly trained in the principles of scientific refrigeration.

Let Us Send You These Catalogs:

No. 51 for Hospitals and Institutions *No. 93 for Residences*

McCRAY REFRIGERATOR COMPANY

766 Lake Street, Kendallville, Ind.

Agencies in all principal cities

An operating lamp that leaves nothing to be desired

THE SAFETY OPERATING LAMP

Equipped with a pilot flame gas lamp to meet emergencies in unexpected power "shut-downs."

Then, too, the simultaneous burning of both the gas and electric lamps, reflecting from the same mirrors, gives almost a perfect daylight and, because of the intermingling of rays, a shadowless light—a light bringing out the natural colors of tissues to better advantage.

A wire glass shield across the bottom of the dome protects the patient and surgeon from falling glass should a bulb explode, while a ventilating system throws the heat up instead of down, much to the comfort of the surgeon and attendants.

Replace your present light with this safe, satisfactory, and more efficient fixture. Write for descriptive circular today.

SPECIFY AND INSTALL
"THE SAFETY"

The KNY-SCHEERER CORPORATION
404-410 W. 27th Street, New York City

DIRECT COTTON MILL AGENTS

Let us save you 30% of your present cost on

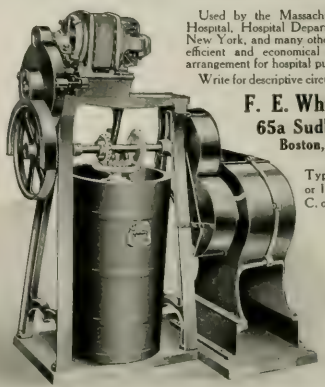
Towels, Seconds in Towels, Gauze, Cheesecloth, *and* Mop Cloth

ACME MILL ENDS CO.
24 EAST ATWATER STREET
DETROIT, MICH.

BOSTON

DIRECT-CONNECTED
SELF-CONTAINED

ICE CREAM FREEZER AND ICE BREAKER



Used by the Massachusetts General Hospital, Hospital Department, City of New York, and many others. The most efficient and economical machine and arrangement for hospital purposes.

Write for descriptive circular and prices.

F. E. Whitney Co.
65a Sudbury St.
Boston, Mass.

Type S. 4½, 6, or 10 gallons. A. C. or D. C. motor.

SARCO

TANK TEMPERATURE REGULATORS

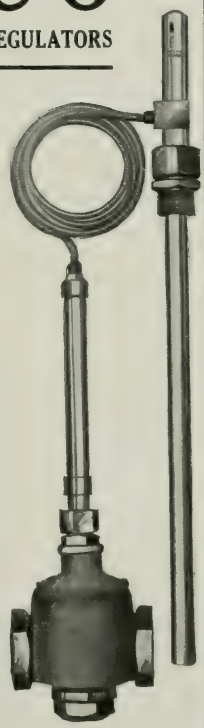
prevent any chance of accidents occurring because of water being hotter than supposed.

In other words, SARCO REGULATORS maintain water at any desired temperature, and prevent it from ever rising to a temperature higher than that desired.

They are easily installed, simple in design, and, most of all, SARCO REGULATORS are **absolutely reliable** in operation.

Operate successfully on steam, water, or gas valves.

Protect your patients and yourself. Write today for full particulars on free trial arrangement.



SARCO CO., Inc.

MANUFACTURERS

Sarco Radiator Traps, Steam Traps, Water and Atmosphere Temperature Regulators

Woolworth Building NEW YORK CITY

and at **Monadnock Block, CHICAGO**
New Telegraph Bldg., DETROIT
Drexel Bldg., PHILADELPHIA

Pure, Wholesome Food At All Times

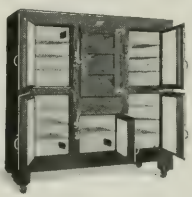
No feature of efficient hospital service is more vital in influencing a patient's recovery than the serving of pure, wholesome food. It won't do to take risks with a "less than best" refrigerator.

Realizing these facts, such leading hospitals as Bellevue, New York; Johns Hopkins, Baltimore; St. Luke's, Chicago, rely on

The MONROE

Solid Porcelain Refrigerator

Every food compartment is a one-piece receptacle of beautiful, snow-white, **genuine porcelain ware, over an inch thick**—every corner rounded. Easily cleaned and kept clean. No lodging places for bacteria.



The "Monroe" approximates 99 percent in these cardinal test points—absolute cleanliness; perfect circulation of dry air; low temperature; small ice consumption.

Write today for the Monroe Book on Refrigeration. It's free. We build Refrigerators for both ice and mechanical refrigeration to order and will gladly co-operate with you or your architect on special plans and designs.

The Monroe Refrigerator Co.
316 Benson Street Lockland, Ohio

Is a Baby's Life Worth Saving?

"From the earliest stages of Obstetrical practice the Physician or Surgeon has experienced the difficulties, too frequently resulting fatally, attending cases of children born with beating pulse, apparently normal and possessed of every faculty, yet unable to breathe, due to the failure of the lungs to assume their natural function.

"Vital statistics show a death rate of from four to five percent among 'new-born' infants, and approximately ninety percent of these deaths are due to suffocation or strangulation."

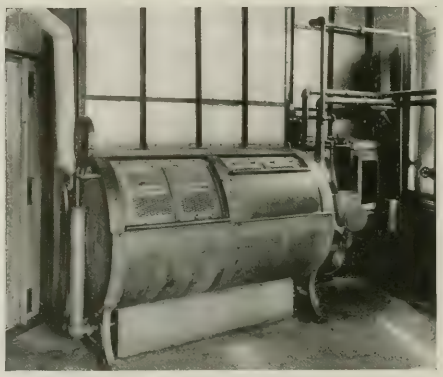
Our booklet, containing matter you should know, sent you on application. Let us tell you all about

THE BABY RESUSCITATOR!

The National Resuscitating Apparatus Company

Manufacturers of Resuscitating and Anesthesia Apparatus

27 WILLIAM STREET NEW YORK CITY, U. S. A.



South Department Boston City Hospital

(Note partitions dividing washer in halves. Doors are provided on both sides of the machine, so that it can be loaded on one side of the partition and unloaded on the other).

HENRICI

The Washer for the Modern Hospital

IT STERILIZES

The Henrici Bronze Washer sterilizes the clothes and kills contagion, as was shown by tests made by the Boston city bacteriologist. Clothes inoculated with **Staphylococcus Pyogenes Aureus** were washed in a temperature of 212° Fahrenheit. The clothes were then incubated to stimulate any germ life remaining. Test showed negative results, proving sterilization and killing of contagious germs.

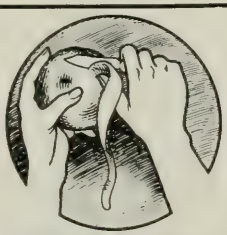
TROY LAUNDRY MACHINERY CO., Ltd.

CHICAGO TROY NEW YORK CITY SAN FRANCISCO SEATTLE BOSTON

Do you receive our house organ, "Troy Topics"?

THE
OLD METHOD

Too wasteful of time, labor, food, and money to be permitted in the hospital.



THE NEW METHOD

"Standard Vegetable Parers"
Cheaper—Quicker—Easier

WHY

Because they will peel larger quantities in less time, with less operating cost and less waste of material, than any other such device on the market.

Built to give the greatest efficiency at all times under the most exacting conditions, this machine will outlast, outwear, and outclass any other peeler.

The missing link in reducing your overhead expenses and increasing efficiency.

Write for prices and discounts

The Reinhold Mfg. Co.
133-39 Beaubien St.
DETROIT, MICHIGAN

RICHARDSON, WRIGHT & CO.

Manufacturers of
Steel Hospital Furniture and Bedsteads
Mattresses and Pillows

65 Beverly Street **BOSTON, MASS.**

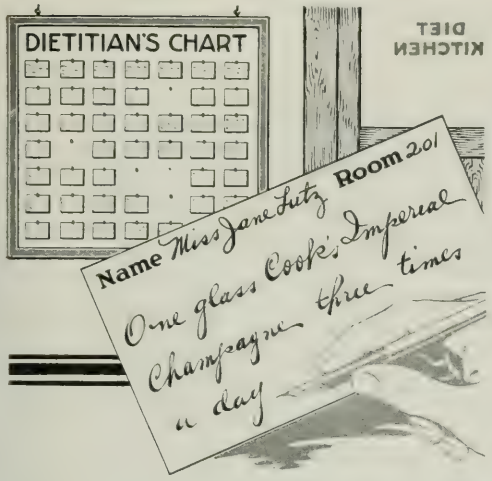
Originators of Flush Joint Construction for Hospital Equipment, eliminating bulky castings and crevices which collect dust and germs.

No. 55—Bedstead

No. 304—Food Car

Catalog and discount on application

Steel Hospital Furniture of Distinctive Character and Quality



Indicated where a light stimulant and tonic is needed

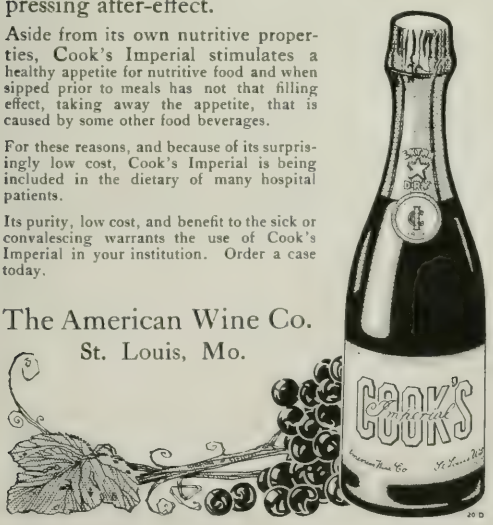
COOK'S *Imperial* Extra Dry Champagne

is just stimulating enough to keep up the spirit of hopefulness in the patient, without any depressing after-effect.

Aside from its own nutritive properties, Cook's Imperial stimulates a healthy appetite for nutritive food and when sipped prior to meals has not that filling effect, taking away the appetite, that is caused by some other food beverages.

For these reasons, and because of its surprisingly low cost, Cook's Imperial is being included in the dietary of many hospital patients.

Its purity, low cost, and benefit to the sick or convalescing warrants the use of Cook's Imperial in your institution. Order a case today.



The American Wine Co.
St. Louis, Mo.

PATIENTS' BED GOWNS

Made of good quality unbleached muslin. Will wash up soft and bleach white after a few washings. Made with regular round neck shape, long sleeves and open back with 3 tape ties to fasten. All sizes 36 to 48. Body length 36 in. which ordinarily will reach to the knee.

No. 5Y3404 ..... Each, 92c
(Doz. $10.50)

Same style as above, but made of fine bleached twill. For hospitals that require the use of a better gown, we would recommend this one. Sizes 36 to 48.

No. 5Y3405 ..... Each, $1.10
(Doz. $12.00)

We can furnish the above in greater lengths, up to 45 in., at 50c per doz. extra.

NOTE—These prices hold good only until our present stock is exhausted. We urge you to BUY NOW.

Our New Catalog

The above item is only one of our line of hospital linens, shown in our new Catalog. Every hospital should have a copy of our Catalog E17N on file. Write for yours today.

Look Through This Journal for Our Other Interesting Announcements

ALBERT PICK & COMPANY
208-220 W. Randolph St. Chicago

This label guarantees quality

Established 1848. Times change, but "Utica" remains a Standard

UTICA Sheets and Pillow Cases

are especially adapted to the needs of Hospitals, Sanatoriums, and other institutions because the Utica fabric is woven of only selected staple cotton—strong and well suited to frequent laundering and steam sterilization.

Utica Sheets and Pillow Cases are made in all sizes, laundered, put up in dust-proof packages ready for use.

Sold by dry goods stores everywhere

Our "Mohawk" brand is a good sheet, not quite so heavy as "Utica."

UTICA STEAM and MOHAWK VALLEY COTTON MILLS :: :: Utica, N. Y.

Operating Room (Shield's), Toronto General Hospital, Toronto, Can.

"White Line" operating room furniture and sterilizing apparatus is built to meet the exacting demands of the modern hospital. Into the construction of "White Line" equipment we permit to enter only such materials as we know, from actual experience, will meet these demands in the most satisfactory manner.

To the hospital seeking equipment of known efficiency, of distinctive merit, we offer equipment and service of the highest order.

SCANLAN-MORRIS COMPANY, MADISON, WIS., U. S. A.

Manufacturers of

The "WHITE LINE" Hospital Furniture and Sterilizing Apparatus

H. D. DOUGHERTY & CO., Inc.
"FAULTLESS" Aseptic Hospital Equipment
17th Street and Indiana Avenue
PHILADELPHIA

No. 4740

Single Form Arm Immersion Stand; steel tubular oxy-acetylene welded frame; finished in white enamel; mounted on 1½-inch rubber wheels; heavy glass tank, with rounded bottom.

Do You Require Your Nurses to Break Ice By Hand in the Ward?

No. 59. Creasey Ice Breaker

Breaking ice by hand doesn't pay. There is a cheaper and easier way to do it that will give more uniform ice with less waste—viz., the Creasey Ice Breaker. No commercial institution having to feed and care for as many people as does the average hospital would be without a Creasey, purely as a business proposition. If your board finds it hard to make ends meet, there is so much the more reason why you should use the Creasey.

Let us send you for thirty (30) days' free trial a hand-driven machine like cut that will take a cake of ice 7x9¼ in. We ask only that you guarantee freight both ways if the machine is returned. Ready for shipping, it weighs one hundred pounds. There are fourteen different sizes of Creaseys.

JOS. S. LOVERING WHARTON
3112 North 17th Street PHILADELPHIA, PA.
B-7

Hospital equipment
a Mandel specialty

—a specialty to the furthering of which has been brought a constant and expert study of modern hospital needs—with the result that the rapid growth of this branch of our business has recently made it necessary to greatly increase our facilities for hospital supply manufacture. We can now assure prompt deliveries on the following:

Surgeons' operating gowns
Surgeons' operating suits
Patients' gowns
Convalescents' gowns
Nurses' operating gowns
Operating caps
Pajamas for convalescents
Bath robes for convalescents
Waterproof gowns
Aprons of all descriptions
Internes' coats and trousers
Orderlies' uniforms

As interior decorators, also, we have enjoyed enthusiastic recognition because of our marked services in the decoration of public buildings thruout the United States. Write for suggestions and estimates.

Mandel Brothers—Chicago

NURSES' OUTFITTING ASS'N INC

425 Fifth Avenue at 38th Street, New York

READY TO WEAR

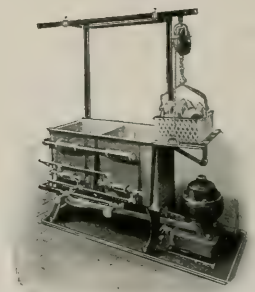
Colored Uniforms	from	$2.35
White Uniforms	from	3.00
Caps	from	.15
Collars	from	.15

Cuffs, Aprons, Bibs
Surgical Gowns at
Moderate Prices~

ALSO

MADE TO ORDER

Send for Catalog A. E.



Soon Pays for Itself
in the saving in help,
dishes, time, and money

"Vortex" Dishwashing Machine

Cast iron tanks—Absolutely Sanitary—Noiseless—No Breakage—Mechanism simple, but substantial—Hot water in rinsing tank practically sterilizes the dishes—Thousands in use—Write for particulars—

The Hamilton-Low Co., New York

MAS-OLEUM

Mastic Linoleum Floors

—best for the most purposes in the hospital. Sanitary—noiseless and non-absorbent. Laid like cement over new or old floors. Does not crack and can be repaired without patch showing.

Sold in packages ready for use. Laid by your contractor or by us. Send for samples and prices

Mas-Oleum Floor Mfg. Co.
11 South LaSalle Street, CHICAGO

Mas-Oleum Gymnasium Floor, Larrabee and North Avenue Branch Y. M. C. A., Chicago

A Necessity for Every Hospital Saves Time and Money

THE 25c CAN — 25¢ THOMPSON'S 25¢ DRAIN-PIPE CLEANER — THE 25c CAN

Dissolves Accumulations of Grease, Slime, Hair, Lint, Cloth, Sponge, Chamois, Vegetable Matter, Cigars and Cigarette butts, Chewing Tobacco, and Leather in Drain Pipes.

Thaws Frozen Drain Pipes, Cleans, Deodorizes, and Disinfects Garbage Cans, Toilet Bowls, Urinals.

Removes Paint, Varnish, and Shellac in 15 minutes.

POSITIVELY WILL NOT INJURE FINEST PLUMBING

Used regularly by the largest Hospitals, Depots, Hotels, and Department Stores in the world.

Put up in pound cans, only $2.50 per dozen, prepaid. Why not order a dozen today and save many times its cost in plumbers' bills?

Avoid Imitations

THOMPSON CHEMICAL COMPANY, Inc.
ESTABLISHED 1904 RICHARD S. THOMPSON, Pres.
23 Duane Street NEW YORK CITY

BAYONNE ROOF AND DECK CLOTH

Easiest to Clean And Keep Clean

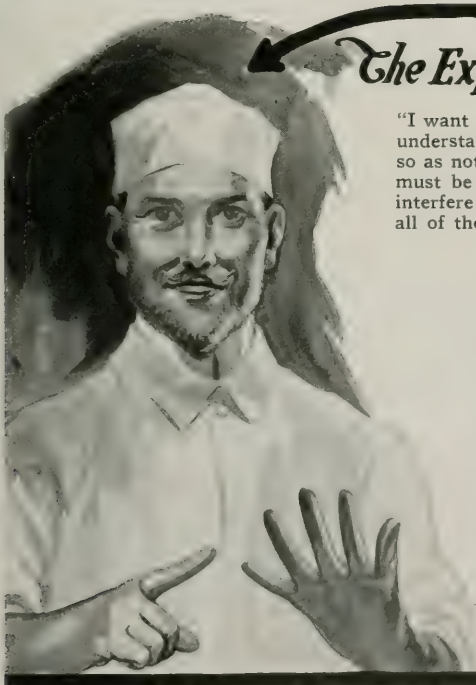
The problem of positive sanitation in the matter of roofs, porch-decks, and the floors of corridors is solved once and for all by the use of Bayonne Roof and Deck Cloth.

This material, made by a patented waterproofing process, admits of thorough cleaning with water, but it can never rust, never buckle, never scale off.

Its immaculate appearance is enhanced by the fact that it is laid on dry boards and painted afterwards. Bayonne is applied with ease—and at a great saving in cost.

Note the superiority of samples in Free Price Book—B.

JOHN BOYLE & CO., Inc.
112-114 Duane St., 70-72 Reade St.,
New York City
St. Louis Branch: 202-204 Market St.



The Experienced Surgeon Says

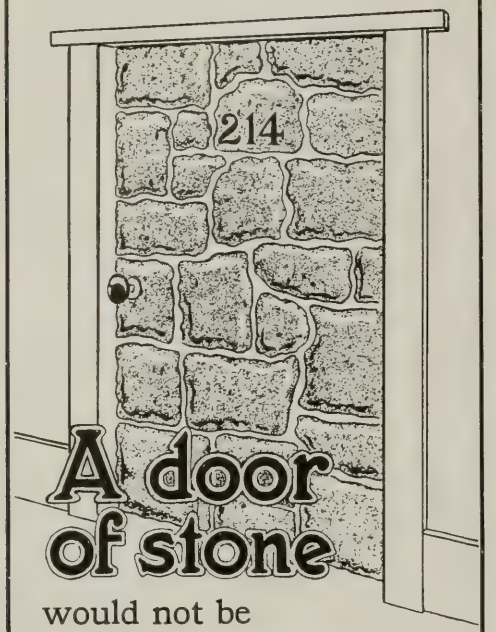
"I want a surgical glove that has been developed by real understanding of the surgeon's needs. It must be elastic so as not to restrict the movement of hand or fingers, it must be tough, and it must be thin so that it will not interfere even slightly with the sense of touch. I find all of these qualities in

Miller Surgeons Gloves

They are always uniform in thickness, free from thick or thin spots, particularly on the finger ends, and they fit perfectly. While their perfect adaptability to the surgeon's needs is the main point, I am interested also in the fact that Miller Gloves stand the most sterilizations and are therefore economical."

You can get Miller Surgeon's Gloves from leading surgical and physicians' supply houses and wholesale druggists everywhere. If your dealer does not stock them, write us, mentioning the dealer's name.

THE MILLER RUBBER CO. AKRON, U. S. A.



would not be any safer than a

DAHLSTROM
HOLLOW METAL DOOR

Both are fire-proof

Dahlstrom products are as fire-resistant as stone and also almost as durable. They resist fire from entering a room—likewise confine the fire to the room in which it originates.

In addition to their fire-proof features, Dahlstrom products also appeal to the hospital in that they are also sound and germ-proof, and are by far the most economical to install, as they outlast all other makes or kinds of doors suitable for the purpose.

Whether building or remodeling a hospital, always specify Dahlstrom Products, and always demand that your specifications be carried out.

Write for the "Dahlstrom Literature."

DAHLSTROM METALLIC DOOR COMPANY

12 Blackstone Ave., Jamestown, N. Y.

Branches in all principal cities

SEND FOR THIS NEW CATALOG

It is a complete guide to **RIGHT BUYING** and lists **QUALITY** goods only. It contains the newest ideas in equipment and also information of the greatest value to hospital buyers. Your copy is waiting and will be mailed, postpaid, upon receipt of a postal card.

WRITE NOW FOR CATALOG E17N

ALBERT PICK & COMPANY
208-220 W. Randolph Street, Chicago, Ill.

Have you thought of these points regarding silent call systems?

With

The Levison Silent Call Signal System

The signal can be released only at the patient's bedside.

It cannot be released *by the patient*, accidentally or otherwise.

Releasing button is on the wall plate, easily accessible to the nurse, without the need of her carrying a key.

Low voltage—10 volts—harmless.

Silent

Trustworthy

Safe

The Chicago Signal Co., Chicago

Comparative Tests Unnecessary

A glance proves the accuracy of

Dr Rogers Tycos
SELF VERIFYING SPHYGMOMANOMETER

The only Sphygmomanometer that "checks" its own readings. The relation of the hand to the immovable zero verifies each blood pressure determination as it is made.

Write for Valuable Blood Pressure Manual

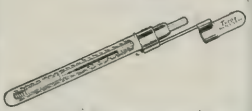
64 Years of Experience

in making thermometers is your assurance of the quality of the

Tycos FEVER THERMOMETER

Guaranteed accurate forever. Tubes cannot shrink. ***Tycos*** Safety Case clips to pocket, preventing loss and breakage. Alcohol in Safety Case keeps thermometer sterile.

Write for booklet, "Sixty-four Years of Thermometer Making"



Accurate Results Assured When

Tycos URINARY GLASSWARE

is used. Corrections made direct from reading. The scale of the ***Tycos*** Standard Urinometer is handwritten, giving the greatest degree of accuracy, and is combined with a thermometer and correction scale.

Full information and description on request

Taylor Instrument Companies
ROCHESTER N.Y.

In
The Torrington Hospital
Torrington, Conn.

(Ernest Greene, N. Y., Architect)

Plastic - Linoleum Floors

were laid throughout the building

AMERICAN FLOORING COMPANY, Inc.

101 PARK AVE., NEW YORK CITY

Used Everywhere

Practically all hospitals, institutions, etc., here and abroad use JUNKET. Its extraordinary nutritive value and digestibility, along with its pleasing taste, are recognized wherever dietetics has been thoroughly studied.

Junket
MADE *with* MILK

Wherever milk is intended for use, it is advisable to serve it in Junket form.

Send for treatise, "Junket in Dietetics" and free samples.

Chr. Hansen's Laboratory

Isabel St., Little Falls, N. Y.

WIRE GLASS FIRE PROTECTION

A Hospital must be protected in every way from fire.
Elevator and Stair Shafts should be inclosed as above.
All window openings should be equipped with metal frames and Wire Glass.

Fire protection in hospitals is receiving the careful study of the Board of Governors, the Architect, and Engineer because it is realized what fire means in a building of this character, where a large percentage of the patients are more or less helpless and, to say the least, in such a serious condition that exposure or shock would result in their death.

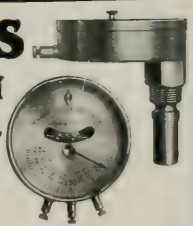
Wire Glass will protect them, and is recognized as a most important and necessary retardant in modern fireproof construction.

Write for samples, literature, or such information as you may desire.

MISSISSIPPI WIRE GLASS CO.

CHICAGO — 223 Fifth Avenue, New York City — ST. LOUIS

JUSTIFIES
ITS INSTALLATION BY THE WATER AND FUEL IT SAVES



The "MINNEAPOLIS" HEAT REGULATOR

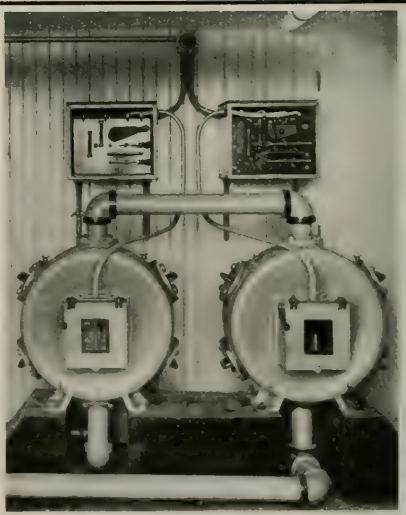
Model No. 65

For Hot Water Tanks and Boilers

Boiling water is a waste of money, a waste of fuel and a waste of water, because boiling water is too hot for general hospital purposes. The "Minneapolis" maintains an exact temperature of your hot water supply. Never too hot. Just right for immediate use. No waiting. No waste.

Ask your architect or engineer. Write for descriptive folder today.

MINNEAPOLIS HEAT REGULATOR COMPANY
2802 Fourth Ave. So.
Minneapolis



STERILIZATION OF WATER

For Drinking, Bottling, Swimming Pools, and all Sanitary Purposes

BY ULTRA VIOLET RAYS

Ultra Violet Ray Lamp Apparatus for Treatment of Skin Diseases and Wounds

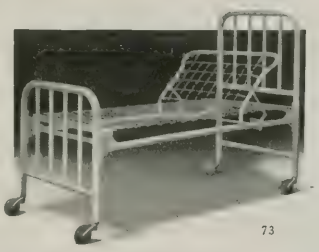
THE R. U. V. COMPANY, 50 Broad St., New York, N.Y.

Send for our Hospital Bulletin

HOSPITAL BEDSTEADS

EMERGENCY ORDERS. We can ship on receipt of a telegram our 3-foot No. 51 Hospital Bedstead in reasonable quantities, as we always carry these in stock.

UNITED STATES ARMY and AMERICAN RED CROSS STANDARD HOSPITAL BEDS. This type can be shipped on short notice, as we are constantly working on orders for them.



PATENTED

Manufactured by

FRANK A. HALL & SONS

ESTABLISHED 1828

25 West 45th Street NEW YORK CITY

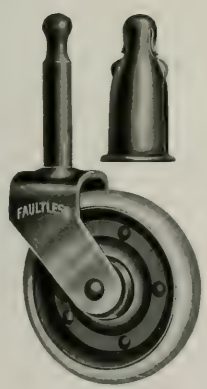
WORTHINGTON QUALITY CHAIRS are different from other invalid chairs in just the same way that Government Bonds are different from Stock Certificates of others—They are always good.

Why? Well—one of the best reasons is that The Worthington Company places quality ahead of price. Price naturally follows long experience—therefore the Worthington Line does not have to sacrifice *quality* for *price*.

There are a hundred other good reasons why the Worthington Quality Chairs lead. You will find them in our No. 20 Catalog.

The Worthington Company Elyria, Ohio

WHY?



Reduced Illustration
F-17-11

Because:

It's pivot-bearing.
It can't drop out.
It moves easily.
It has a ball-bearing raceway axle.
It has a canvas-rubber composition tire.
It is made to fit any size tubing.
It is made with any kind of finish.

Gold Medal, Highest Award
St. Louis 1904
San Francisco 1915

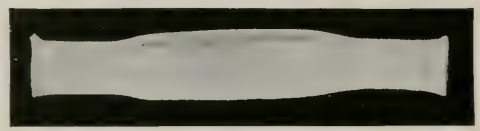
FAULTLESS CASTER COMPANY
EVANSVILLE, INDIANA

"Move the FAULTLESS way"

Surgeon's Seamless Arm-Stocking

"Good for a Thousand Uses"

This article is offered to physicians and surgeons and to hospitals as an added convenience to the ordinary equipment to their offices, and, when once used, we believe it will immediately become a necessity. It is in daily use in many of our largest hospitals, and is also being largely used in emergency railway work by several roads. Its designer very truthfully said that it was "good for a thousand uses."



These arm-stockings are very handy when operating or for office use for plaster casts and retention of bandages, also in emergency and field work, to cover dressings and be certain they will remain in place.

Made in three lengths—thirteen, sixteen, and twenty inches.

Price per pair.....35 Cents Per dozen pair.....$3.00

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Manufacturers, Importers, and Exporters of High Grade Surgical Instruments and Hospital Supplies

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ABSORBENT COTTON

Grown in our own fields, and prepared in our own factory, under thoroughly modern and hygienic conditions. Highly absorbent and pure.

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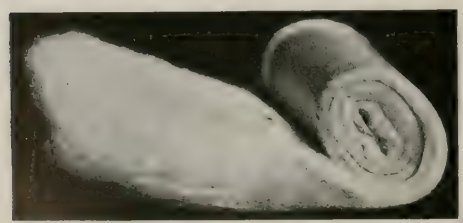

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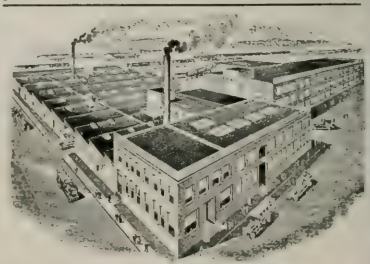

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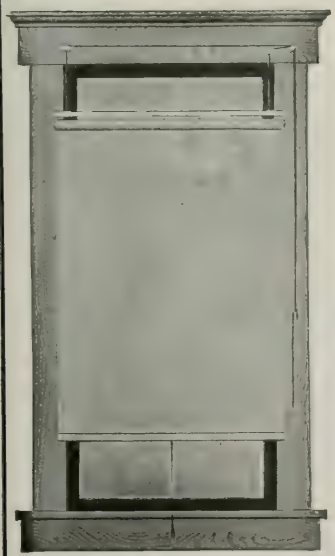

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Price $2.50 Complete

THE BACK REST built on engineering principles and conforming to the requirements of the modern hospital.

(Order from your dealer or through us)

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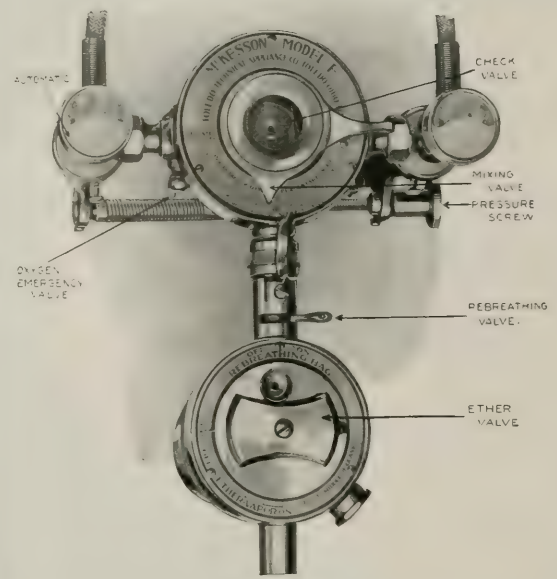

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The McKesson Hospital Unit No. 40 is equipped for major surgery, as well as for obstetrics. The highest skill is used in its production, resulting in an automatic, accurate apparatus, which is very easy of manipulation, allowing the anesthetist time for observing his patient and regulating the state of anesthesia to a nicety.

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Orders filled promptly.

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DOES THE WORK OF FOUR HAND OPERATORS

will do your work at the minimum of cost. In this day, when the expense of hospital maintenance is steadily mounting, every dollar you can save on laundry operation will aid in keeping on the right side of the ledger.

Write us to figure exactly what this saving will amount to in YOUR institution. State the number of beds and the present mode of ironing and washing.

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Stanolind
Trade Mark Reg. U. S. Pat. Off.
Liquid Paraffin
(Medium Heavy)
Tasteless—Odorless—Colorless

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Stanolind Liquid Paraffin is an ideal laxative for surgical practice.

When used in the proper dose, it thoroughly empties the alimentary canal, without producing irritation or other undesirable effects.

It is particularly valuable in intestinal surgery, because it leaves the stomach and bowels in a quiet state, and because its use is not followed by an increased tendency to constipation.

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Stanolind Liquid Paraffin is essentially *bland* in its action, causing a minimum amount of irritation while in stomach or intestine. It may also in most cases be gradually reduced without apparently affecting the frequency of the evacuations.

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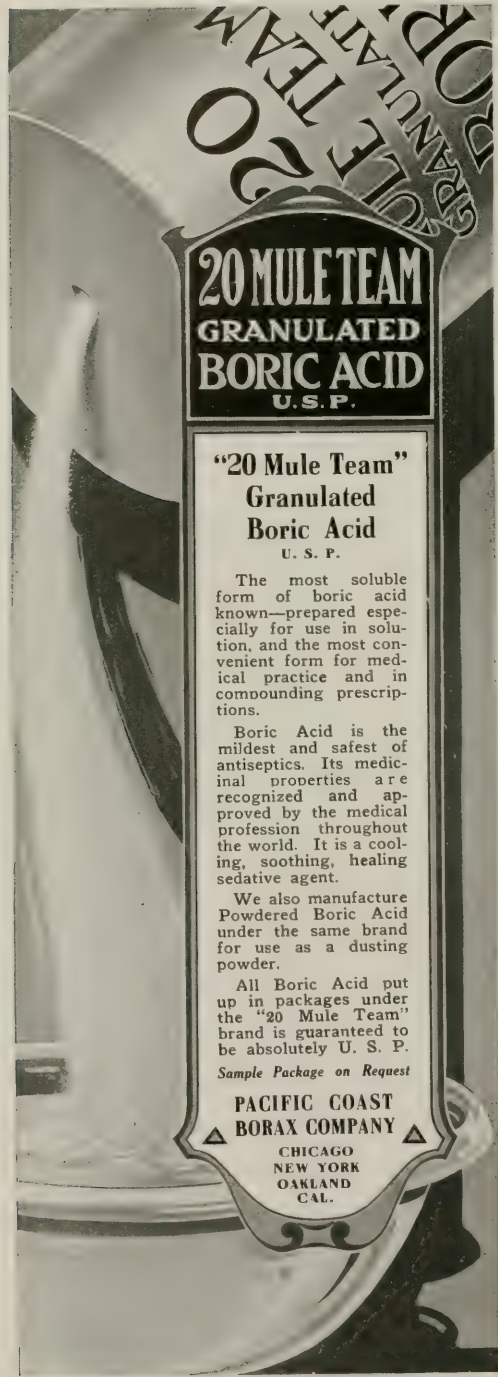

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The most soluble form of boric acid known—prepared especially for use in solution, and the most convenient form for medical practice and in compounding prescriptions.

Boric Acid is the mildest and safest of antiseptics. Its medicinal properties are recognized and approved by the medical profession throughout the world. It is a cooling, soothing, healing sedative agent.

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All Boric Acid put up in packages under the "20 Mule Team" brand is guaranteed to be absolutely U. S. P.

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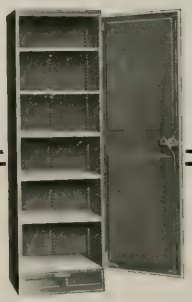

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because of their practicability, durable construction and artistic design, are the cleanest, safest and most satisfactory receptacles for storing and protecting garments, records and other articles in the hospital or institution. The shelving is easily adjustable, and the interior arrangement can be altered at will.

These wardrobes and cupboards can be furnished in several styles, of varying capacity, and are finished in baked enamel—black, olive green and light gray. They are shipped knocked down or completely assembled.

Write for descriptive folder of complete line before specifying equipment for your hospital.

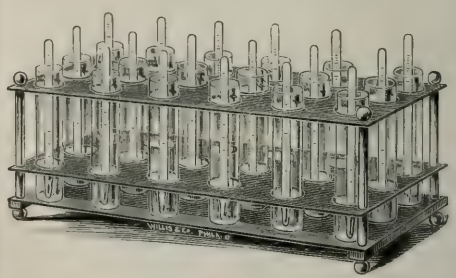
TERRELL'S EQUIPMENT CO., Grand Rapids, Mich.

IDEAL THERMOMETER RACK

for keeping an individual thermometer in antiseptic solution.

PRICE (without Thermometers) **$3.00**

Two Sizes—12 or 18 Tubes



Cotton in bottom of glass prevents breaking and thermometers can be quickly used, and are aseptic.

Quotations given on Thermometers

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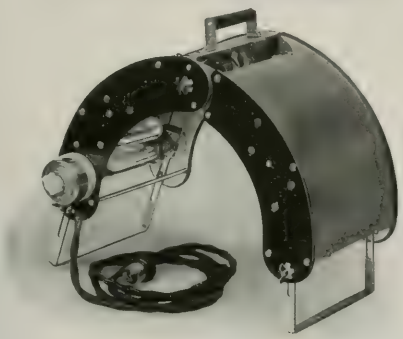
ELECTRIC BAKERS



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The Edmands Electric Bakers are adjustable for the application of radiant heat to any part of the body.

Edmands Heater Lamps are now made in white, amber, violet, blue and red natural glass, greatly increasing the usefulness of the apparatus.

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The Plaster pre-eminently qualified for Hospitals, because of its Permanence and Sanitary Qualities, is

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The one and only plaster that, when enameled, will undergo sterilization without deteriorating. Hot steam-proof. Will not crack or peel. Becomes more durable with age.
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F. & B. BATTLESHIP LINOLEUM

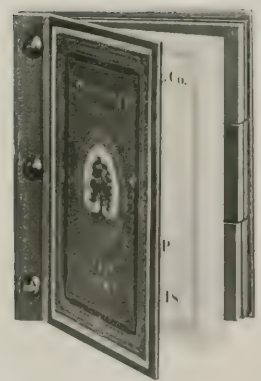
—a resilient, sanitary, and durable floor covering for the Private Room

—A floor covering that will cost less per foot per year than any other floor or floor covering suited to the purpose.

F. & B. BATTLESHIP LINOLEUM is used on Government Battleships, the test which it must undergo before being accepted by the Navy Department being your guarantee as to the high quality and durability of this product. Its long and extensive use for this purpose has given it the name by which it is known and sold—"F. & B. Battleship Linoleum."

F. & B. BATTLESHIP LINOLEUM is made 6 feet wide, in lengths up to 90 feet, and in Brown, Green, and Terra Cotta colors, in three grades—Heavy (¼ inch thick), Medium (3 16 inch thick), Light (⅛ inch thick), in accordance with U. S. Navy Department standards.

F. & B. Cork Carpet is preferred by some hospitals for the private rooms on account of certain characteristics that are particularly desirable. It has the softness of a velvet carpet, yet is sanitary, and radiates a warmth and cheerfulness so pleasing in the sick room.



Supplied in rolls 6 feet wide, approximately 90 feet long, in four plain colors (Tan, Terra Cotta, Dark Green, Light Green), and two thicknesses—First Grade (3/10 inch thick), and Second Grade (3/16 inch thick). The quality is exactly the same in both grades.

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showing Navy Department Test for Battleship Linoleum, and also showing, by actual sample, the composition and manner in which our goods are made. Write

FARR & BAILEY MFG. CO.

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If a user of linoleum, remember to specify "F. & B. BATTLESHIP LINOLEUM" in your next order

THE DE CANIO

Telescopic Support and Portable Stretcher

An Improved Method for Keeping Cadavers

THE DE CANIO cannot warp, stick, or bind in operation, and is the *pioneer* of all similar apparatus.

It is made entirely of metal, galvanized after having been assembled, and is sanitary, durable, and efficient.

The De Canio can be easily installed in any type of refrigerator, and can be withdrawn from the refrigerator its full length for the purpose of inspecting the cadaver.

Many prominent hospitals and institutions are using the De Canio. Bellevue Hospital in New York City is equipped with more than 400 De Canios.

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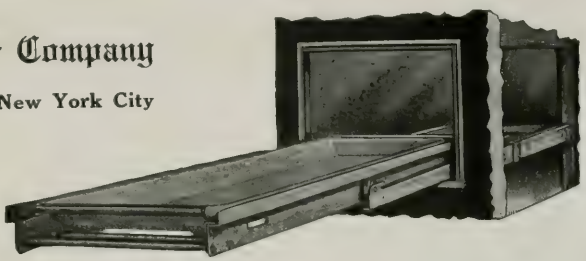
Lorillard Refrigerator Company
Established 1877
25 West 32nd Street **New York City**

We specialize in Refrigerator work for Hospitals, Hotels, Clubs, Institutions, and Private Residences.



We Specialize on Institution Beds

We center every effort of our organization on the production of Metal Beds, Springs, and Hospital Furniture for general institutions. Will be pleased to quote prices on application.

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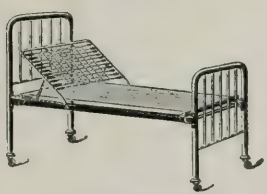
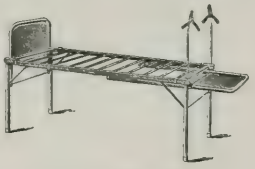


No. A-112—Institution Bed

No. A-145—Irrigator Stand



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Showing Head and Foot Ends lowered to be used as trays
No. A-144—Obstetrical Bed

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Manufacturers of High Grade Institution Beds and Hospital Furniture

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We are now prepared to supply Haemacytometers of various rulings and Sahli Haemaglobinometers of guaranteed accuracy.

Made in our own factory in America

Prices on application

SPENCER BUFFALO U.S.A.

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WEAR "KNUKLFIT" GLOVES

The Glove with the "Hump"

THE
BEST
REGARDLESS
OF
PRICE

The Lincoln Rubber Company
Akron, Ohio

If Nature could

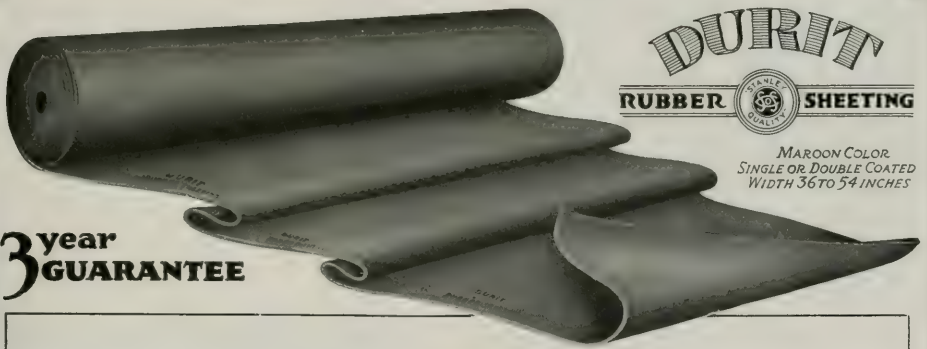
she would provide mankind with heel cushions as efficient in the prevention of physical shock and jar as

O'Sullivan's HEELS

But Nature has been so handicapped by civilized manners and customs that her protective efforts are essentially limited. Happily the genius of man has found in another of Nature's gifts a means of supplementing her heel cushions. O'Sullivan's Heels of new live rubber have solved the hygienic problem, and their use not only effectively decreases fatigue, but by preventing repeated shocking of the nervous system—with its inevitable irritation and depression—goes far to conserve the body's resistance to disease.

Medical appreciation of the hygienic value of O'Sullivan's Heels is conclusively proven by the number of doctors who wear them

O'SULLIVAN RUBBER CO. **New York City**



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MAROON COLOR
SINGLE OR DOUBLE COATED
WIDTH 36 TO 54 INCHES

3 year GUARANTEE

Judge This Heavy Service Sheeting Not by *First* Cost, but by *Average* Cost Per Year

The original cost of "DURIT" is about twice that of ordinary sheeting—but it will last three times as long under the same conditions of service—an actual saving in cost of 33⅓%. We fully guarantee "DURIT" not to crack, peel, harden, or discolor through contact with urine, acid, or water.

"DURIT" is recommended as a very economical sheeting for general hospital use—and because of its great wear and tear resistance is particularly desirable for extreme conditions of service and climate.

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STEAM STOCK KETTLE

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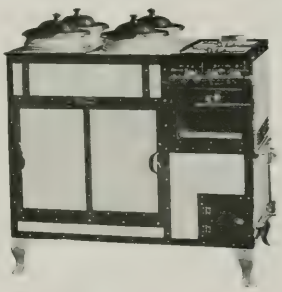
Complete Kitchen Dietitians' and Nurses' Training Apparatus



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DIET KITCHEN TABLE

We manufacture only the most modern and thorough Practical Cooking Apparatus, using in their construction such materials as have been pronounced absolutely sanitary.

We have made a study of the necessities of the Hospital Kitchen, and will be glad to furnish plans and specifications on request of anyone interested.

THE ABOVE STYLE OF EQUIPMENT USED IN THE

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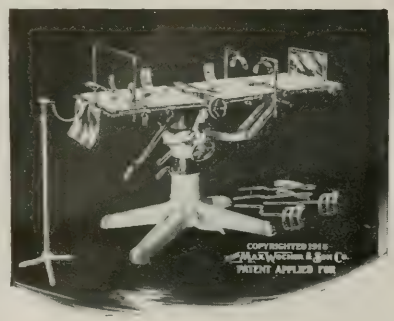
New Chicago Municipal Contagious Disease Hospital, Chicago, Ill.

Cincinnati, Ohio **THE JOHN VAN RANGE COMPANY** Chicago, Ill.



The Cincinnati Pedestal Automatic Operating Table

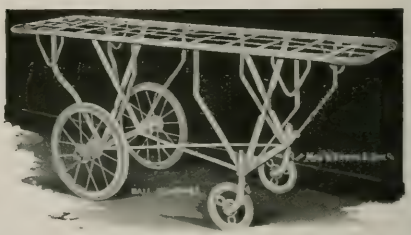
Gives every position known to modern surgery. Has many features not incorporated on any other table.

The Babcock Wheel Stretcher

Extra heavy construction, with Ball Bearing Wheels and 1⅜″ rubber tires. Adopted by many hospitals as the most satisfactory pattern.

Van Horn Catgut, - $22.50 per gross
Davis & Geck Catgut, $19.44 per gross

Complete Stock of Plasters, Sutures, Dressings—Quick Delivery.



THE MAX WOCHER & SON CO. Cincinnati, Ohio

An appetizing little lunch

made doubly so through the use of

"MOCO" Vitrified Cooking and Serving Ware

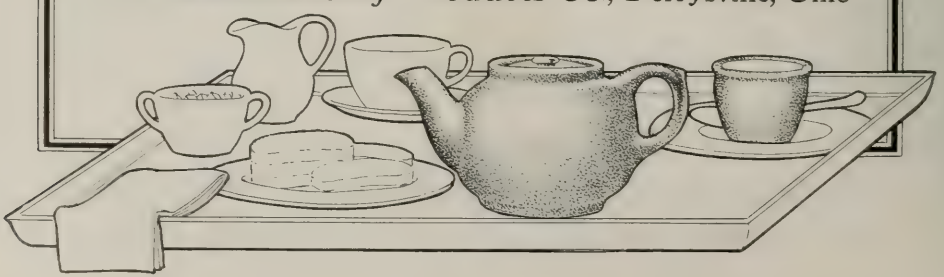
There is a certain pleasing individuality about food cooked and served in "MOCO" WARE that appeals to the eye as well as to the palate of the more or less finical patient.

A "MOCO" WARE lunch appears as though the food has been prepared expressly for the person to whom it is served, and not as though it was just his share of the hospital's conglomeration of meal-time foods.

"MOCO" WARE is rich seal brown in color and lined with a high-grade white china—non-absorbent, acid-proof, and will not craze.

Write for descriptive catalog, as well as a few pieces for trial purposes.

The Mohawk Clay Products Co., Perrysville, Ohio



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Do you know that a law provides its use free of tax for Universities, Colleges and Hospitals, which may apply to you?

F. O. BOYD & CO.
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have made a specialty of this business for a great many years and will be glad to furnish you with all the details
FREE OF COST

Foster IDEAL HOSPITAL BEDS

SERVICEABLE designs for every Institutional need. Also made to special order. Aseptic enamel finish, especially durable. Moderately priced.

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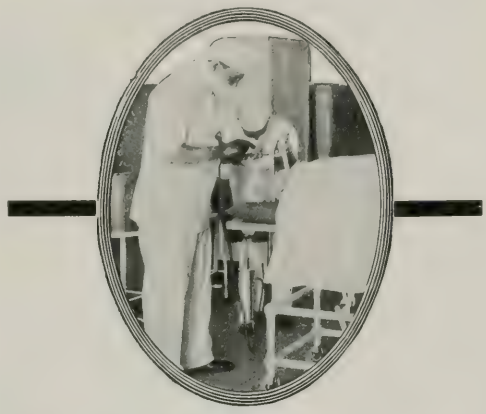

When the Need Comes
Have a Pulmotor of Your Own

No one can tell exactly when the urgent need of a Pulmotor will arise, no more than anyone can shrug aside the staring fact that in hospital routine there continually arise cases where the Pulmotor will give valuable aid in preserving life.

To depend on borrowing a Pulmotor from the fire department or a nearby public service station, or mining or industrial plant, is taking unnecessary and dubious chances.

There is no need of it.

type B Pulmotor

is well within the reach of any hospital or emergency station, however small.

Type "B" Pulmotor is not to be confounded and comdemned with pump-controlled, measured-volume machines. It is the first hand-operated resuscitation apparatus functioning on recognized physiological principles. It is the result of years of study on the part of world-known physiologists, and is made by the oldest and largest manufacturers of life-saving and rescue apparatus in the world.

Type "B" Pulmotor most closely reproduces natural breathing in both volume and cadence. It adapts itself to any pair of lungs. Absolutely protects patient from over-energetic pumping.

No hospital is complete without a Pulmotor. The reputation of your hospital demands that you at least investigate. Write for literature at once.

Draeger Apparatus is made in Pittsburgh, under U. S. Patents

The Draeger Oxygen Apparatus Co.
808 Hay St., Wilkinsburgh Sta., Pittsburgh, Pa.

AGENTS for The Wolf Safety Lamp Co. of America
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ESTABLISHED 1874

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QUALITY & SERVICE

EVERYTHING IN FINE RUBBER

FOR POST-OPERATIVE WORK AND AFTER CHILDBIRTH, THE IDEAL POSITION IS MAINTAINED WITH THIS

DAVOL

REST-EASY NON-SLIP BED CUSHION

Its special construction supports the thighs and relieves the spine and abdominal muscles from all strain. Used with a back rest, it gives the required Fowler Position and is convenient for giving the Murphy Drip.

Rest-Easy Bed Cushions may be obtained from Hospital Supply Houses. If not at yours, send us their name and we will ship sample cushion direct to you.

DAVOL RUBBER COMPANY
PROVIDENCE, R. I., U. S. A.

CÉLESTINS

There Is No Vichy Except That Bottled by Us

There is no water entitled to the name and prestige of Vichy water except that bottled at the springs owned by the French Government at Vichy, France. There are three of these springs—Grande-Grille, Hopital and Célestins.

Look for the name CÉLESTINS at the bottom of the bottle. As every physician knows, the so-called artificial Vichy waters have little or no therapeutic value and use the name Vichy on account of its popularity. *Never order "Vichy"—order CÉLESTINS Vichy.*

To Physicians Particularly

The place of CÉLESTINS Vichy in the dietary is distinctive and important. It is an alkaline water of diuretic action, affecting beneficially the liver and stomach, checking uric acid deposits, diluting the bile, and disintegrating calculi. CÉLESTINS Vichy is indicated in cases of the following: chronic hepatic disorders; gastric and intestinal indigestion; acid dyspepsia; chronic catarrhal gastritis or enteritis; chronic nephritis; rheumatism; diabetes; inflammation of the bladder. A brief and authoritative booklet on the therapy of CÉLESTINS Vichy will be sent free on request.

35 S. William St., New York City

Bringing the Old Hospital Up to the Standard of the New One

LARGER windows are recommended today by hospital architects as well as by the architects of industrial buildings.

The value of more daylight is better understood, and modern construction makes larger window space possible.

The new hospital building, therefore, has an advantage over the one built several years ago.

In respect to artificial lighting, however (and artificial light is in many respects quite as important as daylight), the older building is in a position to compete with the modern.

Many buildings—factories, office buildings, hospitals, hotels, and stores—have had their lighting systems changed several times since construction to keep pace with lighting developments.

Some of the best lighting installations in the country today are in old buildings.

Your hospital may have been built before the semi-indirect system came into use, and still there is no reason why you could not have that system installed.

Or have your direct system modified and improved.

There is no reason why, in respect to artificial lighting, your hospital shouldn't be as modern as any in the land.

Our Engineering Department will be glad to inspect your lighting system and make recommendations free of charge.

The subject of changing from an old to a modern system is fully discussed and illustrated in "Modern Methods in Hospital Lighting," a copy of which will be sent to you free if you desire it.

Westinghouse Lamp Company

165 Broadway, New York

Sales Offices and Warehouses Throughout the Country

GUARANTEED BY THE NAME

Concerning Medicinal Malt Preparations

THE manufacture of malt preparations for medicinal use is a highly specialized professional work, and is successfully accomplished only under the direction of competent chemists. While in some respects similar to the brewing of beer, there are vital differences both in the materials which enter into these products and the processes of manufacture.

ANHEUSER-BUSCH'S
Malt-Nutrine
TRADE MARK.

the food-tonic

is the recognized standard of medicinal malt preparations of its class. The materials used in its manufacture are specially selected and safeguarded. Only the choicest Barley-malt and Saazer hops are used, and the finished product contains all of the soluble substances of these two materials.

Malt Nutrine is a perfect malt preparation, and should not be confused with cheap dark beers, many of which are represented to be medicinal malt products.

For the hospital patient, physician, or nurse who is in need of a refreshing, appetizing, nourishing and mildly stimulating liquid food, ***Malt Nutrine*** is most serviceable. It is low in alcohol strength (less than 2%), but high in food value (14% of the solids extracted from malt and hops).

Pronounced by the U. S. Internal Revenue Department a PURE MALT PRODUCT, and not an Alcoholic Beverage

Sold by all druggists

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Visitors to St. Louis are cordially invited to inspect our plant

Guaranteed 10 Years

You may have hospital rooms hot as you wish. The temperature will never loosen the legs

This furniture is

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Repair Proof
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Made in Quartered Oak and Birch Mahogany. Highest grade of finish.

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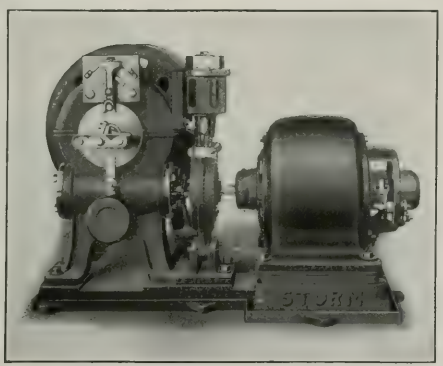

Power Mechanism of Storm Electric Dumb Waiters

PUSH A BUTTON and the Storm Electric Dumb Waiter comes down or up and stops at its place. Push a button and it goes up or down, stopping where you want it to stop. Same thing day in and day out. That's why you should install or specify Storm Dumb Waiters or Hospital Lifts.

Write

THE STORM MANUFACTURING CO.
50 VESEY STREET, NEWARK, N. J.

Cook and Serve In the Same Dish

Hall's Fireproof China insures Sanitary Cleanliness all the time. It cannot craze—those fine little lines which appear in ordinary china (and which harbor borrowed flavors and dishwater) cannot come in Hall's China.

It makes better cooking because none of the flavor is lost—food is cooked and served in the same dish.

HALL'S SECRET PROCESS FIREPROOF CHINA

Leadless Glaze — Non-Porous — Acid-Proof—Almost Unbreakable

Many hospitals are using Hall's China. The Hall Tea Pot—for tea, or coffee, or chocolate—gives the best tea that can be brewed. Hall's Casseroles, Ramekins, Custards, etc., will help in adding many dainty dishes, and the beauty of the richly glazed china lends charm to the service. Hall's China is made in either green or brown colors outside, all pure white inside.

Free illustrated booklet tells all about the many articles made in Hall's China. Write for this booklet

HALL CHINA COMPANY
Walnut Street
EAST LIVERPOOL, OHIO

Hall's Fireproof Tea Pot

Did You Ever Reason?

Did you ever reason with yourself that neither soap nor sal soda were suitable cleaning materials for Hospital or Institutional uses?

You have long known the necessity for hot rinsing everything and every place washed with soap; and, too, you have often experienced the burning properties of sal soda. But do you also know that sixty per cent of sal soda is water, and for this water content you are paying the washing powder price?

When you consider those facts, the preferment shown the

"Wyandotte" Cleaning Specialties

is easily understood. Unlike soap, they contain no organic matter, and leave no deposit or objectionable residue and require no hot rinsing.

And, unlike sal soda, they have no hurtful or unpleasant properties.

And, again, every particle in their makeup is a sanitary cleaning, working particle. They are Efficient, Sanitary, Economical, and Harmless.

Order from your supply house or write us for further information.

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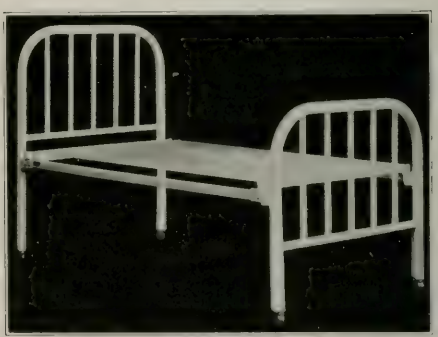

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Well constructed and finely finished. Made with either Woven Wire or Link Bottom as preferred. High grade casters

Send for Catalog and Prices

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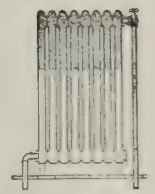

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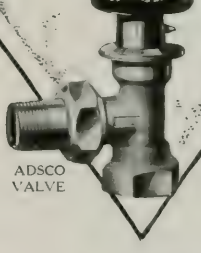
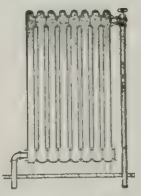


ADSCO VALVE



Valves open 25% give 25% capacity—not 90% or 10%

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Atmospheric System of Steam Heating—Steam or Vapor, with the ADSCO Graduated Radiator Valve and ADSCO Regulator—means

TRUE FUEL ECONOMY

You can use a house boiler or take steam from underground mains of a central station.

On your next new addition or remodeled building, *investigate this simple system.*

You will save on piping—you need only one valve on the radiator—no air valve—no steam trap. No noise—no leaky valves—no escaping steam.

You will save on fuel (20 % to 30 %). You control the amount of steam admitted to each radiator to get the proper heat for each room as weather conditions require.

This ADSCO Valve can be open ¼, ⅓, ½, ¾, or any degree from closed to full open position. You control this supply of steam at each radiator as you control water at the faucet.

Most Scientific and Practical Method

of steam heating for hospitals, homes, office buildings, apartments.

The ADSCO System does not only mean much from the standpoint of *economy,* but also from the standpoint of *health and convenience.*

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General Office and Works:

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Elbow Type — For Clinic Lavatory

Niedecken Mixer

Patented

The Perfect Mixing
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For Shower, Lavatory,
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Bronze Seats

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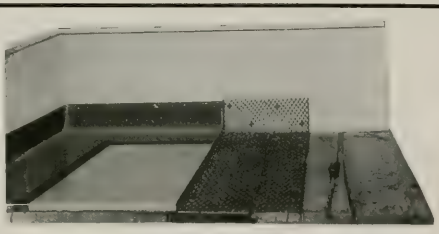

Smooth but not Slippery, Handsome, Sanitary, Fire-proof Asbestone Floor.

Rough, Splintered, Unsightly, Unsanitary, Inflammable Wood Floor.

Yes—Forget Your Floors

You can do that after you have had ASBESTONE laid. It is the one economical yet universally satisfactory floor for the hospital.

Presto! One layer of ASBESTONE turns old worn-out wood or concrete floors into a beautiful, resilient, seamless, sanitary, fireproof new floor. Any man handy with tools can lay it from full instructions we send with each order.

MULLER ASBESTONE
The Floor That's Laid With a Guarantee

ASBESTONE looks and wears like tile, and costs less than half as much.

How many square feet in your hospital really need attention? Just tell us and we'll send a quotation, samples, etc., by next mail.

FRANKLYN R. MULLER & CO., 761 Madison St., Waukegan, Ill.

Also inquire about our elastic stucco, which can be applied during the coldest day of winter or the hottest summer weather.

ASEPTIC HOSPITAL FURNITURE

Special Designs Furnished Free

We also Build a Complete Line of Steel Filing Devices and Furniture for Office and Vault

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Electric Burglar Alarms for Bank and Security Vaults

MINNEAPOLIS, MINN.

In the Operating Room

the fatiguing strain of much

standing and hard floors on the nurses, surgeons, and assistants is wonderfully reduced when such persons wear

CAT'S PAW

CUSHION RUBBER HEELS

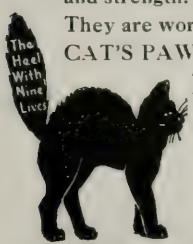
They are almost indispensable to surgeons, interns, nurses, and others in the hospital.

They make it possible for anyone to move about noiselessly and with perfect safety, because the Foster Friction Plug positively prevents slipping, thereby conserving energy and strength.

They are worn today by millions of people who have tried other kinds first.

CAT'S PAW CUSHION RUBBER HEELS are highly sanitary—no dirt-carrying holes.

They cost no more than the ordinary kinds. 50 cents attached, at all dealers. White, tan, and gray—for men, women, and children.



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114 Federal Street BOSTON, MASS.

Originators and Patentees of the Foster Friction Plug, Which Prevents Slipping

The Columbus Laboratories

31 North State Street
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EXAMINATION of water and milk supply, their purification and control.

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SPECIAL TESTS on flour to determine its market and food value.

DIABETIC FORMULAS and balanced rations scientifically prepared as the case may require.

CONSULT US before selecting diabetic and other health breads.

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SEND YOUR *pathologic specimens* to us for diagnosis.

WE CAN ASSURE you a valuable and prompt service.

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LET US MAKE complete examinations in *post-mortem* studies.

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CONSULT US when you have *medico-legal cases.*

We make a specialty of examining drugs and medical preparations for purity, strength, and composition.

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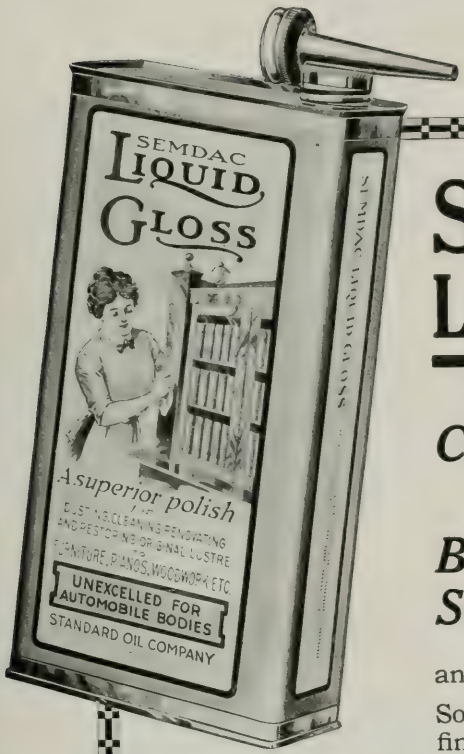


Semdac Liquid Gloss

(A Superior Polish)

Cleans Finished Surfaces Better Than Soap and Water

and in one-half the time.

Soap and water dulls the finish.

Semdac does not mar the finish. It polishes as well as cleans—removing every bit of grime—all in one operation. It restores original brightness to all finished surfaces.

Semdac functions in a manner of signal importance to Hospital Superintendents.

Applied with a cloth, it collects dust without scattering it.

Results are gauged frequently by the cost of achievement. Semdac not only keeps down the dust but the cost as well.

Made and guaranteed by

Standard Oil Company

(Indiana)

72 W. Adams St. Chicago, Ill. 53

CERTIFIED DIAGNOSIS

Made possible by the Kilo-Amp Interrupterless Transformer

Human skill in diagnosis is at best a guess, unless verified by mechanical means.

A Radiograph of the affected area puts the stamp of certainty upon the Diagnosis, at once a protection to the Diagnostician and a guide to the operator.

The Kilo-Amp Interrupterless Transformer offers an efficient method for instantaneous radiography at a popular price. A perfectly synchronized current is obtained. It is at all times under the control of the operator, permitting him to secure any degree of penetration or intensity desired, while a simple adjustment controls the apparatus for fluoroscopic purposes.

WE HAVE SPENT THAT YOU MIGHT SAVE. A special closed core transformer is used, having a larger percentage of copper in it than customary, permitting the outfit to be operated on smaller feed wires, thereby materially reducing the cost of installation.

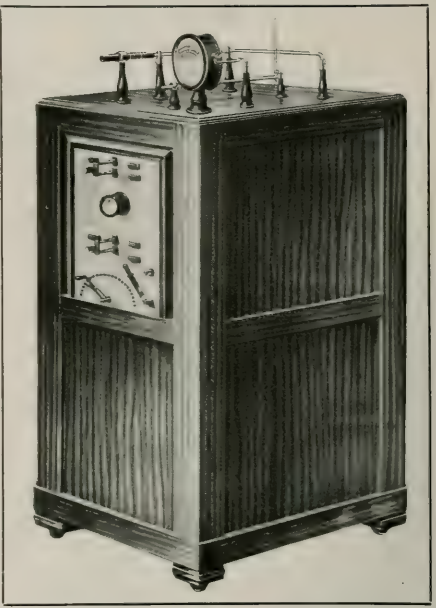
The outfit is furnished in a genuine mahogany cabinet of attractive design with conveniently arranged marble switch-board. The cabinet stands 57 inches high, the top being 28 by 24 inches.

The Kilo-Amp Interrupterless Transformer operates on 220 volts, requiring from 30 to 60 amperes of current.

UNCONDITIONALLY GUARANTEED.—The Kilo-Amp Interrupterless Transformer is guaranteed indefinitely and without exception. Behind this broad and unconditional guarantee is the strength of our mammoth organization and manufacturing plant.

A smaller installation is made for Dentists and those not requiring instantaneous radiography.

We will gladly send you full particulars of these new and attractive outfits.



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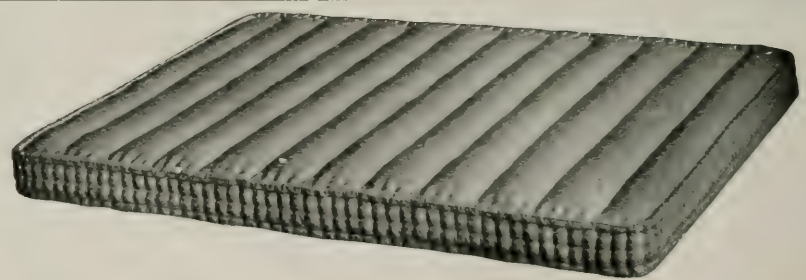

Dixie Fine Bedding for Hospitals

COMFORTABLE—CLEAN—WHOLESOME—REASONABLE

¶ The illustration shows our No-Tuft Compartment Hair Mattress, made without tufts, most filling where most wear comes, guaranteed five years against spreading. When desired equipped with removable rubber cloth sheeting. Easily renovated; can be thoroughly sterilized without renovating.

¶ Write for complete descriptive literature, and let our Contract Department assist in working out suitable bedding for your requirements.

¶ Address Contract Department, Chicago Office.

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WHAT IT IS. *WHY YOU WANT IT.*

"Tide-water" Cypress

"A WORD TO THE 'BUYS' IS SUFFICIENT." *HOW TO GET IT.*

Owing to the nation-wide insistence upon Cypress, "The Wood Eternal," for all uses that invite decay, (as well as for artistic uses in interiors), it became necessary to devise safeguards for lumber-consumers who have had no reason to become skilled in identifying different woods or in judging their gradations or adaptabilities.

The one way for you to be sure that the Cypress you get was grown in a region near enough to the coast to possess the MAXIMUM *of decay-resisting quality* is to refuse all but genuine "TIDE-WATER" CYPRESS—and the **only way** to *know* that you're getting *Tide-water* Cypress is to *insist* (and *keep on insisting*) upon SEEING WITH YOUR OWN EYES the REGISTERED TRADE-MARK of the Southern Cypress Mfrs. Assn., *stamped ineradicably* in *one or both ends* of EVERY CYPRESS BOARD OR TIMBER, and on EVERY BUNDLE of "small sticks," such as flooring, siding, moulding and shingles. This is the mark to BUY BY—now that every piece of thoroughly reliable

"TIDE-WATER" CYPRESS MANUFACTURED BY ASSOCIATION MILLS IS IDENTIFIED BY THIS TRADE-MARK

TRADE MARK REG. U.S. PAT. OFFICE

Only mills which are qualified by the superior physical character of their product AND the ethical character of their business practice can belong to the Southern Cypress Mfrs. Assn. —and *only member-mills* can ever apply this legally registered trade-mark to ANY Cypress.

Let our ALL-ROUND HELPS DEPARTMENT help YOU *MORE.* Our entire resources are at your service with Reliable Counsel.

SOUTHERN CYPRESS MANUFACTURERS' ASSOCIATION

1260 HIBERNIA BANK BLDG., NEW ORLEANS, LA., *or* 1260 HEARD NAT'L BANK BLDG., JACKSONVILLE, FLA.

INSIST ON TRADE-MARKED CYPRESS AT YOUR LOCAL LUMBER DEALER'S. IF HE HASN'T IT, *LET US KNOW.*

TELL HIM TO REMEMBER "BUY BY THE CYPRESS ARROW"

"Signed Lumber is Safe Lumber."

CLINICAL EVIDENCE

The Final Test

"I wish to acknowledge the receipt of the tubes of Pepsodent which you sent me, and also to say that in a case which I treated for pyorrhea six months ago, a lady of 76, that the gums did not recuperate satisfactorily, perhaps on account of her age and lack of recuperative powers. I prescribed PEPSODENT, and after a month the gums and soft tissues were normal, showing no inflammation. It was a gratifying result, and I am more of an enthusiast for PEPSODENT."

The above report is from a pyorrhea specialist of recognized standing who has used PEPSODENT in conjunction with instrumentation (planing) and polishing since September, 1915. Name on request.

These results are obtained, *first,* by the action of Pepsin in facilitating the removal of bacterial plaques, the source of infection, and, *second,* by the action of the soluble calcium salts in raising the resistance of tissues to infection.

The Viennese scientists, Chiari and Januschke, have found that the calcium salts have a remarkable action in reducing inflammation of tissues. Leo substantiated their findings by making tests with calcium salts in pneumococcic and other infections. Regardless of the bacteria selected, his results were all positive, "since the action of the calcium salts is not directed against the phlogogenic organisms themselves, but these salts serve to strengthen the resistance of the tissues against the influence of phlogogenic organisms without influencing these directly."

THE PEPSODENT COMPANY is the first to advocate calcium therapy in the treatment of pyorrhea.

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The New-Day Dentifrice

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THE PEPSODENT COMPANY
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Please send samples and literature.

Dr. _____

Address _____

(Inclose card or letterhead)

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OVALTINE
FIRST 10 SECONDS: Pour a teaspoonful of OVALTINE into a teacup—or 2 teaspoonfuls if desired.
SECOND 10 SECONDS: Pour hot milk or water over OVALTINE—not boiling, because it coagulates the egg.
THIRD 10 SECONDS: Stir until OVALTINE is dissolved and serve. Sugar may be added to taste.

A complete food beverage in thirty seconds by the clock

OVALTINE

Malt, Milk, and Eggs

flavored with Cocoa

OVALTINE is a complete food—highly nutritious—completely absorbed—quickly assimilated—and *quickly and easily* prepared.

It is made in Berne, Switzerland, by a special process which preserves the vitalizing elements of the four natural foods of which it is made—Malt, Milk, Cocoa, and Eggs, in soluble granules.

OVALTINE, as you can readily see, is an ideal food for the sick or convalescing—the expectant or nursing mother—or the ill-nourished child.

Its taste is a pleasing one—and one which never grows monotonous regardless of the frequency with which it is served. It is invaluable as a food beverage for "between-meal" feedings.

UNTOUCHED BY HAND
AN IDEAL BEVERAGE
A COMPLETE FOOD
OVALTINE
THE FOOD BEVERAGE
CONCENTRATED MALT EXTRACT MILK AND EGGS FLAVORED WITH COCOA IN SOLUBLE GRANULES
IN TINS - 50¢ & $1.00

SEND FOR TRIAL TIN

that you may taste and further analyze this truly wonderful beverage. No cost. No obligation. Just write; but please write soon, as war conditions are limiting our stock.

Depot: The Wander Co.

23 N. Franklin St., Chicago, Ill.

Dr. A. Wander, Ltd., Berne, Switzerland

The National Breakfast Fruit

Recipes by Authorities

You know the value of serving oranges to people who are convalescing—here are some suggestions for the menu prepared by A. F. Pattee and Julius Friedenwald, M. D.

Orangeade, 197 Calories

1 sour orange
½ cup boiling water
2 tablespoons sugar
⅛ slice orange

Prepare as for lemonade. If orange is not very acid, add a little lemon juice or use less sugar.

Orange Sauce, 136 Calories
(Three Servings)

Beat white of egg very light, add two tablespoons sugar gradually, beating constantly, then add one and one-half tablespoons orange juice and one teaspoon lemon juice.

Orange Jelly

Soak a teaspoonful of granulated gelatine in two tablespoonfuls of cold water and half a cupful of hot water. Add three tablespoonfuls of sugar and two teaspoonfuls of lemon-juice, and when cooling add four tablespoonfuls of orange juice.

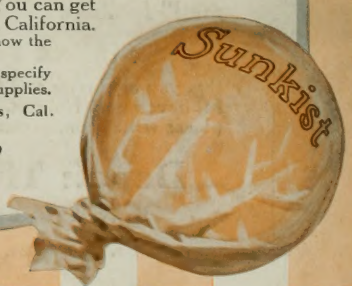
Sunkist

Uniformly Good Oranges

Sunkist Oranges are *uniformly good.* When you buy oranges, especially in large quantities, you want them all to be good fruit. Sunkist are dependable—uniformly good. And Sunkist are *fresh* every day the year 'round. You can get them fresh *all summer,* for they're *picked* fresh every day in California.

They are sold in tissue wrappers stamped "Sunkist" so you'll know the genuine and can *easily* get good fruit.

Therefore don't order merely "oranges" hereafter but always specify "Sunkist," just as you specify your medicines and other hospital supplies.



California Fruit Growers Exchange, Dept. M-81, Los Angeles, Cal.
A Co-Operative, Non-Profit Organization of 8000 Growers

"Oranges for Health"